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The Trade Wind Zone Oceanography Pilot Study Part II: Townsend Cromwell Cruises 4, 5, and 6 May to July 1964

By Robert L. Charnell, David W. K. Au, and Gunter R. Seckel

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The Trade Wind Zone Oceanography Pilot Study Part II: Townsend Cromwell Cruises 4, 5, and 6 May to July 1964

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ABSTRACT

A standard grid of oceanographic stations in an area bounded by lat. 10° and 26° N., and long. 148° and 157° W., was occupied at monthly intervals between February 1964 and June 1965. For the second set of three cruises, Townsend Cromwell cruises 4, 5, and 6, May to July 1964, oceanographic station data are tabulated, BT data are presented in vertical sections, and the distribution of surface temperature, surface salinity, and surface dynamic height relative to 1,200 m. are shown in charts for each cruise. Methods and procedures as well as the limitations of the data are discussed.

INTRODUCTION

This is the second of a series of reports presenting physical oceanographic data of the Trade Wind Zone Oceanography Pilot Study conducted by the Bureau of Commercial Fisheries Biological Laboratory, Honolulu. The data were obtained during a series of 16 monthly cruises between February 1964 and June 1965 over a set station pattern in an area near the Hawaiian Islands bounded approximately by lat. 10° and 26° N. and long. 148° and 157° W.

The complete set of observations represents a three-dimensional time-sequence distribution of properties (temperature, salinity....) in the trade wind zone of the central North Pacific. It is a pilot study of an investigation in which seasonal changes in the distribution of properties are to be explained in terms of 1) seasonal changes in the processes of net heat and water exchange across the sea surface, and 2) the effects of seasonal changes in wind stress and water motion. The Trade Wind Zone Oceanography Program was planned by Gunter R. Seckel and is carried out under his direction by HL (Bureau of Commercial Fisheries Biological Laboratory, Honolulu).

This report contains the BT (bathythermograph) and oceanographic station data for the fourth, fifth, and sixth cruises in the series. Figure 1 shows the cruise track for the three cruises and gives the position of the Nansen bottle oceanographic casts and the BT casts.

All cruises were made by the R/V Townsend Cromwell, commanded by Captain Robert E. K. D. Lee, with officers Jan Liefting and Pete Andrich. The scientific parties were composed of the following:

Townsend Cromwell, cruise 4:
May 14 to June 5, 1964

David W. K. Au - HL - Field Party Chief
Howard Adrian - HL
Claude E. Allen - HL
Melvin E. Kau - HL
James H. Uchiyama - HL
David Bratley - Smithsonian Institution
Warren King - Smithsonian Institution

Note.--Robert L. Charnell, Oceanographer, presently with Hazelton Nuclear Science Corp., Palo Alto, California 94303, formerly with Bureau of Commercial Fisheries Biological Laboratory, Honolulu, Hawaii; David W. K. Au, Physical Science Technician and Gunter R. Seckel, Oceanographer, Bureau of Commercial Fisheries Biological Laboratory, Honolulu, Hawaii 96812.

Townsend Cromwell, cruise 5:
June 15 to July 5, 1964
Robert P. Brown - HL - Field Party Chief
Howard Adrian - HL
Melvin E. Kau - HL
Michael R. Marcotte - HL
Stephen M. Skolnick - HL
Dayle N. Husted - Smithsonian Institution
Warren King - Smithsonian Institution

Townsend Cromwell, cruise 6:
July 13 to August 1, 1964
David W. K. Au - HL - Field Party Chief
Howard Adrian - HL
Claude E. Allen - HL
Arthur M. Bauckham, Jr. - HL
Paul M. Shiota - HL
Dayle N. Husted - Smithsonian Institution
Warren King - Smithsonian Institution
H. W. Tinkelenberg - Massachusetts Institute of Technology

OBSERVATIONS[1/]

In addition to the regular Nansen and BT casts shown in figure 1, BT casts were made at 18.5-km. (10-nautical-mile) intervals for studies of variability between stations 19 and 21, 26 and 28, and 35 and 37.

To supplement the physical oceanographic data presented in this report, additional information of the following types was obtained.

Biological

A 1/2-hour surface plankton tow was taken daily at 2000 hours with a 1-m. net. Flyingfish which stranded themselves on deck were collected daily. Regular observations of fish schools, sea mammals, and birds were supplemented by more detailed bird counts by observers from the Smithsonian Institution.

Meteorological

Rain measurements as well as standard weather observations were taken four times daily. Radiation from sun and sky was measured and recorded daily with an Eppley[2/] pyranometer. These observations were supplemented by daily color photographs of clouds.

Current

Ten plastic-enclosed drift cards, described by Barkley, Ito, and Brown (1964), were released at each BT cast. Current-measuring techniques were tested with an Ekman current meter on cruise 4 and a Roberts meter on cruise 5, both suspended from the ship. The ship was drifting relative to a parachute drogue placed at a depth of 1,200 m. On cruise 6, H. W. Tinkelenberg conducted sound-ranging tests using subsurface floats which imploded in the sound channel after a period of time. Results of these tests can be obtained from H. Stommel, Massachusetts Institute of Technology, Cambridge, Mass. 02139.

PREPARATION OF DATA

Standard oceanographic procedures were employed in the preparation of the data for this report. Salinity determinations were made on the University of Washington salinity bridge (Paquette, 1958). Duplicate determinations were made with an induction salinometer. When values differed more than 0.02 °/oo, the salinity was redetermined on the U.W. salinity bridge, and the mean of the salinity bridge determinations was reported. Oxygen concentrations were determined by the modified Winkler method (Thompson and Robinson, 1939). Inorganic PO_4-P was determined by the procedure of Robinson and Thompson (1948) as modified at the University of Washington. All thermometers had been calibrated at HL since April 1962. The reported temperatures are estimated to be accurate to ±0.02° C. Application of corrections to protected and unprotected thermometer readings and computations of thermometric depths and L-Z values were performed with an IBM 7040 digital computer at the University of Hawaii Computing Center with a program written at HL. Depths were determined by the use of values from the L-Z curve for the actual depth. This procedure gave depth estimated to be within ±10 m. down to 1,000 m. and within ±1 percent below 1,000 m.

Sigma-t, specific volume anomaly, and the dynamic height were computed on the IBM 7040 computer by the program prepared at HL and based on equations given by LaFond (1951). The computer also was used to interpolate all

[1/] All data not presented in this report are on file at the Bureau of Commercial Fisheries Biological Laboratory, Honolulu 96812.

[2/] Trade names referred to in this publication do not imply endorsement of commercial products.

properties at standard depths by means of a subroutine furnished by the University of Washington Oceanography Department and based on the interpolation method outlined by Rattray (1962).

In the region of study, a sharp thermocline generally separates a surface mixed layer from the subsurface waters. Only infrequently do Nansen casts adequately define this configuration, with the result that the interpolation program provides inaccurate values for temperature. BT data were used to correct the temperature-depth curve in the thermocline and the isothermal layer. When necessary, a value of temperature was chosen from the corrected curve at standard depths in the mixed layer and upper thermocline and, with the corresponding salinity value from the T-S curve, was used with the Nansen cast data in the interpolation program. The resulting interpolated values were much nearer the actual oceanographic situation as implied by the BT trace.

To estimate the validity of values for the surface distribution charts, the surface bucket values of temperature and salinity were compared, for each cruise, with values from the surface Nansen bottles. For temperature, variation was fairly random so that the mean of the difference between the two values was well within the accuracy of the surface bucket thermometer. The root mean square value computed from the above differences was less than 0.2° C. The bucket salinity values, on the other hand, were consistently larger than the Nansen bottle values, most probably owing to salt contamination at the time of sampling. The mean of the differences was about 0.03 °/oo and the root mean square value was within 0.07 °/oo for each cruise.

PRESENTATION OF DATA

For each of the three cruises the original as well as derived data and section plots for the properties have been included.

Tables 1, 2, and 3 contain the oceanographic station data for cruises 4, 5, and 6, respectively. In addition to the position, date, and time at each station, weather and sea conditions in standard notation have been included in the heading of each station. The first five columns of each station listing show the observed depth, temperature, salinity, oxygen, and phosphate,[3/] respectively; the next two columns contain calculated sigma-t and specific volume anomaly for the observed data. The next three columns present the interpolated values of temperature and salinity at standard depths and the last three columns contain sigma-t and the specific volume anomaly calculated from the interpolated data and the anomaly of dynamic height summed from the surface. The error terms, defined by the Rattray interpolation technique, that exceeded 0.10 for temperature and 0.05 for salinity have been noted below the tabulation for each station. Interpolated and extrapolated values as well as irregularities in the original data are noted in these tables.

Temperature distribution sections along long. 148° W., 151° W., 154° W., and 157° W. based on the 270-m. BT's are included; so are the shorter zonal sections between stations 7 and 7A, 25 and 26, and 37 and 40. In addition, surface temperature and salinities are presented with each section. All the sections were plotted automatically by the model 566 Calcomp plotter with a program designed at HL. These seven BT sections are shown in figures 2 through 7 for cruise 4, figures 8 through 13 for cruise 5, and figures 14 through 19 for cruise 6.

The surface temperature distributions, based on bucket temperature at each BT cast, are shown in figures 20, 21, and 22 for cruises 4, 5, and 6, respectively.

The surface salinity distributions, based on bucket salinity samples at each BT cast, are shown in figures 23, 24, and 25 for cruises 4, 5, and 6, respectively.

The dynamic topography, relative to 1,200 m. for cruises 4, 5, and 6, is shown in figures 26, 27, and 28, respectively.

ACKNOWLEDGMENTS

The data for these cruises were processed by HL personnel under the direction of Mary Lynne Godfrey. Betty Ann L. Keala did the computer programing.

3/ Oxygen and phosphate data are available only for cruise 6. The columns in the tables for cruises 4 and 5 bear the oxygen and phosphate headings only to have a uniform format for this series of reports.

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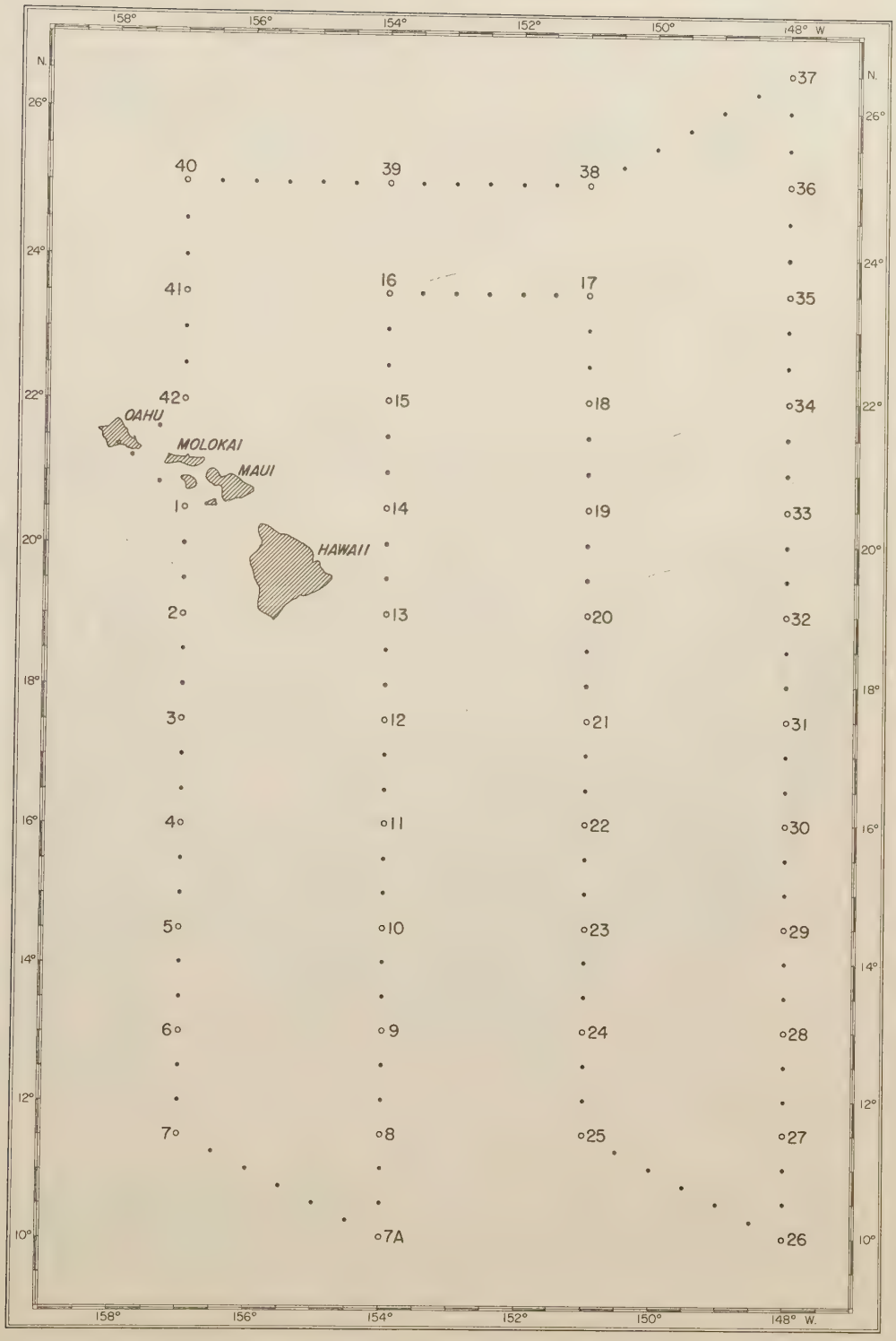


Figure 1.--Track chart for Townsend Cromwell cruises 4, 5, and 6. The large, numbered dots indicate the locations at which both hydrographic and BT (bathythermograph) casts were made; the smaller dots indicate locations at which only BT casts were made.

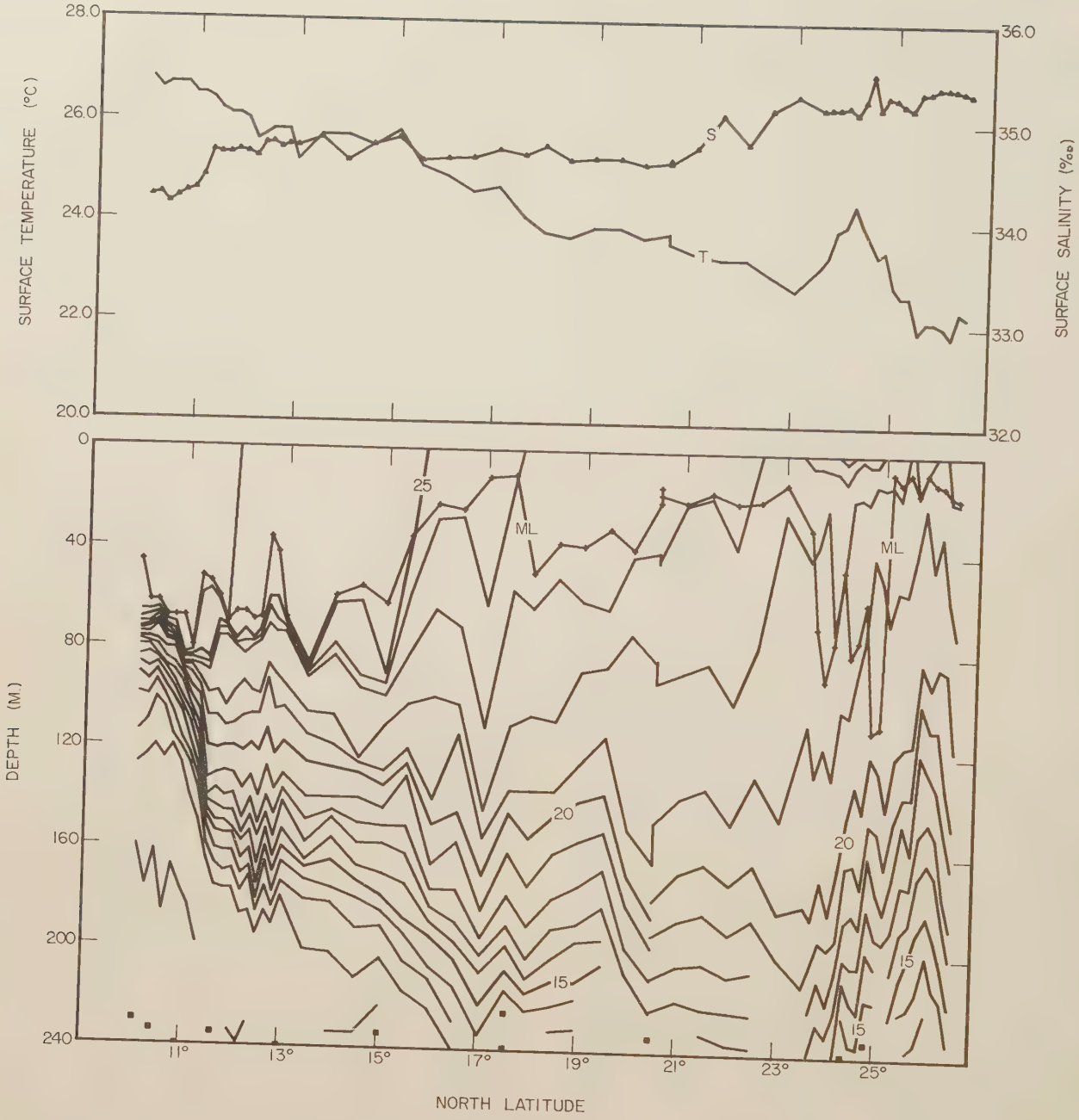
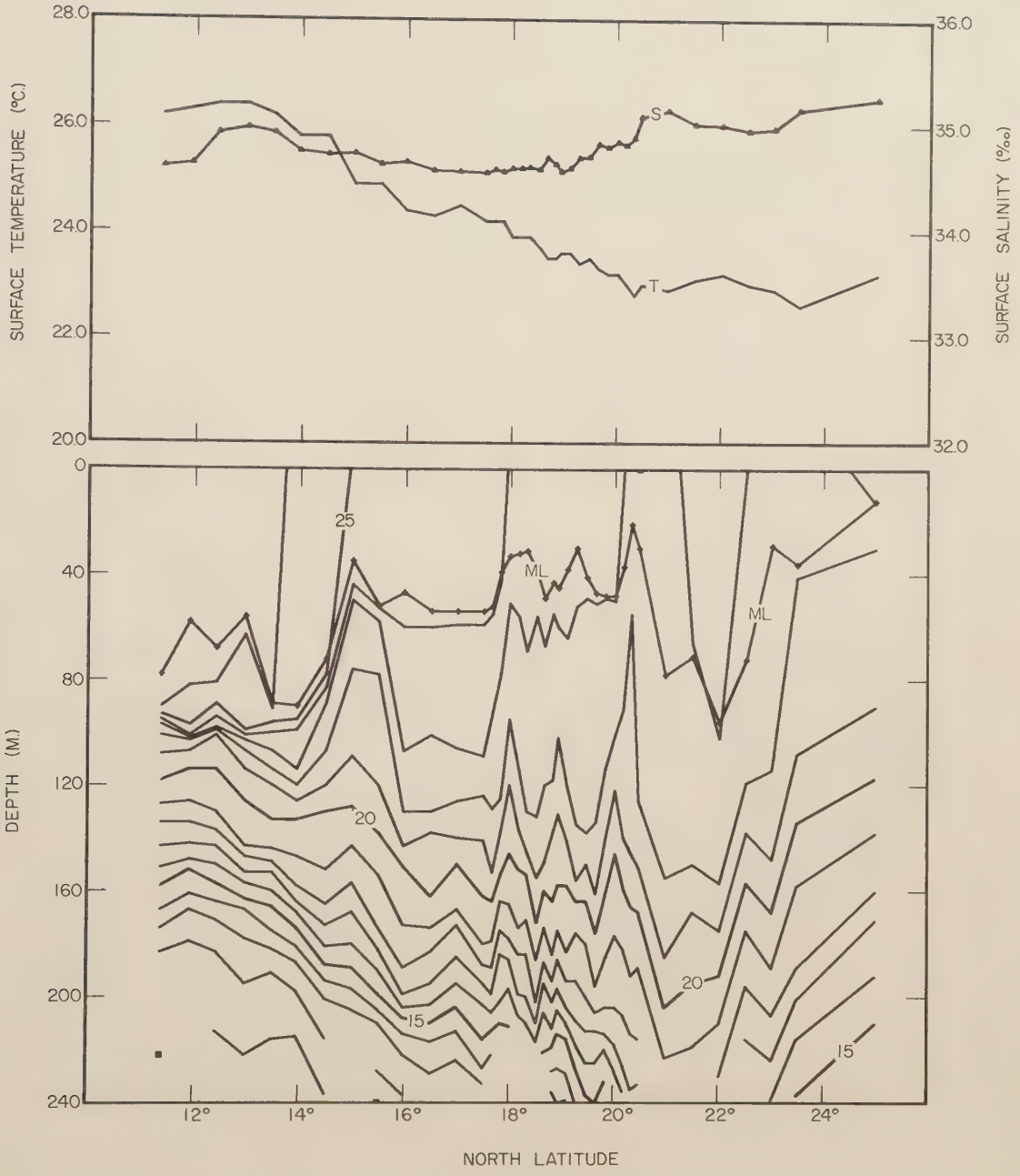


Figure 2.--Surface temperatures (° C.) and salinities (°/oo) (upper panel) and BT temperature (° C.) section (lower panel) for Townsend Cromwell cruise 4 along long. 148° W. The bottom of the ML (mixed layer) is shown by the starred line in the lower panel.



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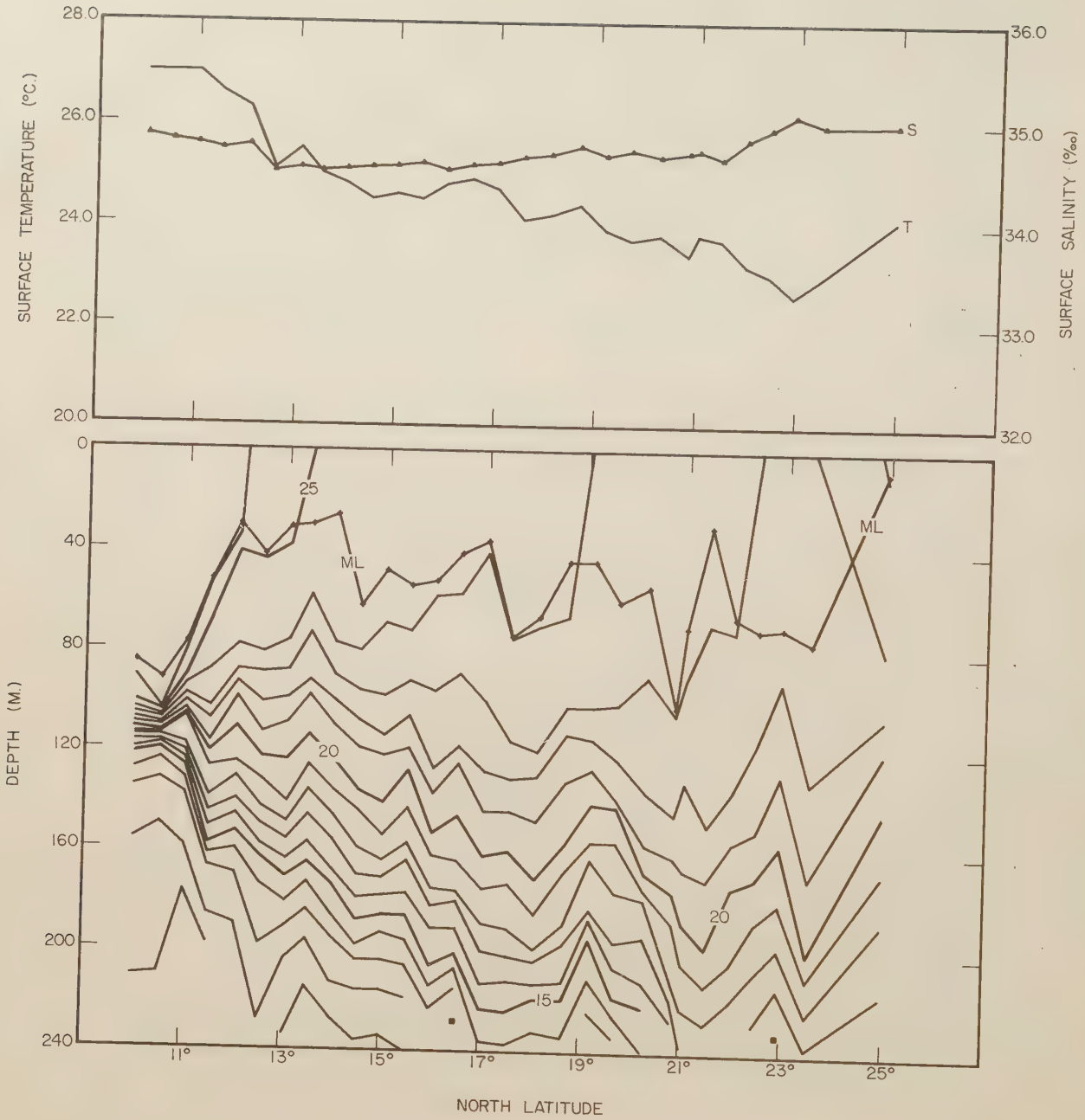
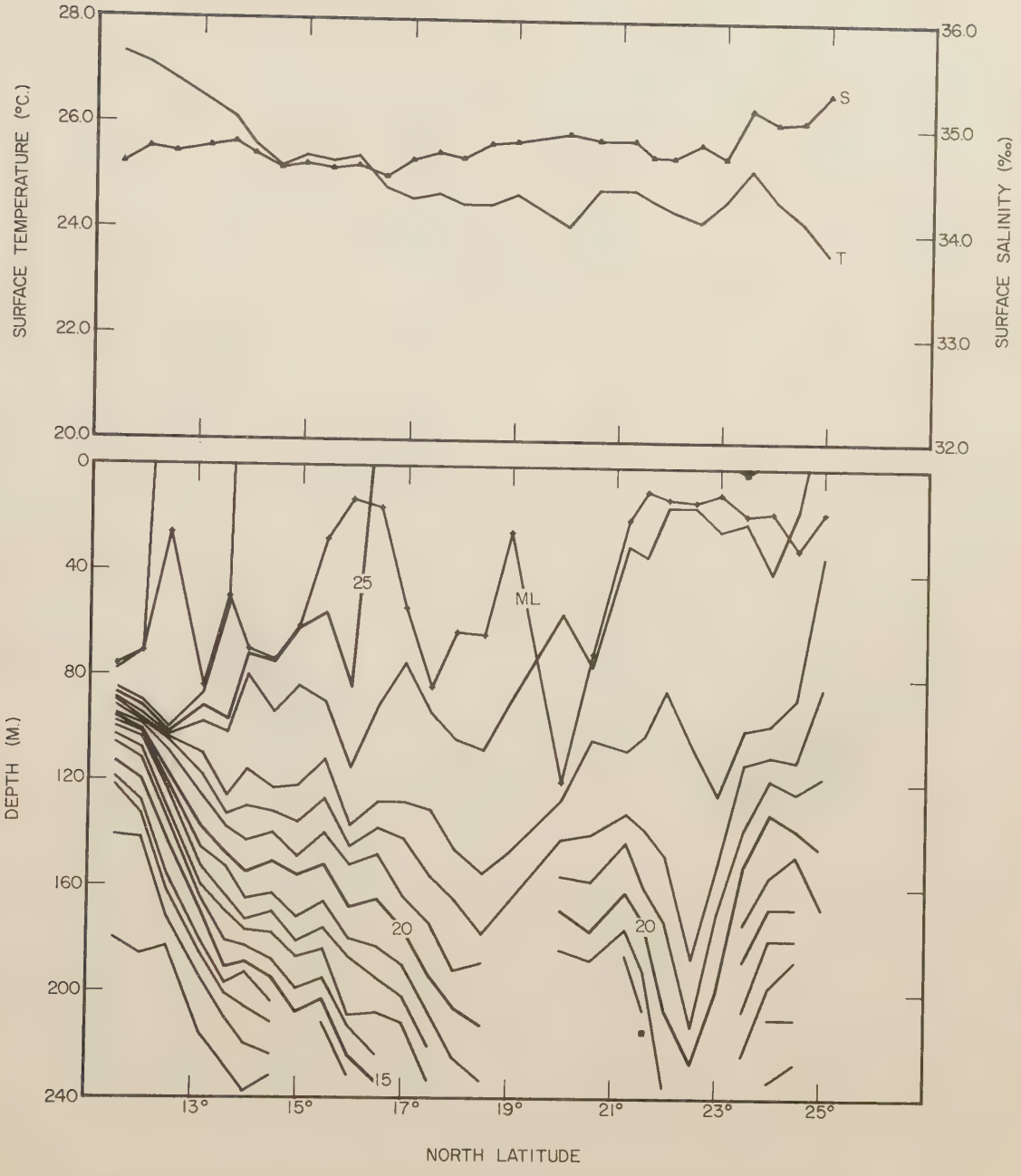


Figure 4.--Surface temperatures (° C.) and salinities (°/oo) (upper panel) and BT temperature (° C.) section (lower panel) for Townsend Cromwell cruise 4 along long. 154° W. The bottom of the ML (mixed layer) is shown by the starred line in the lower panel.



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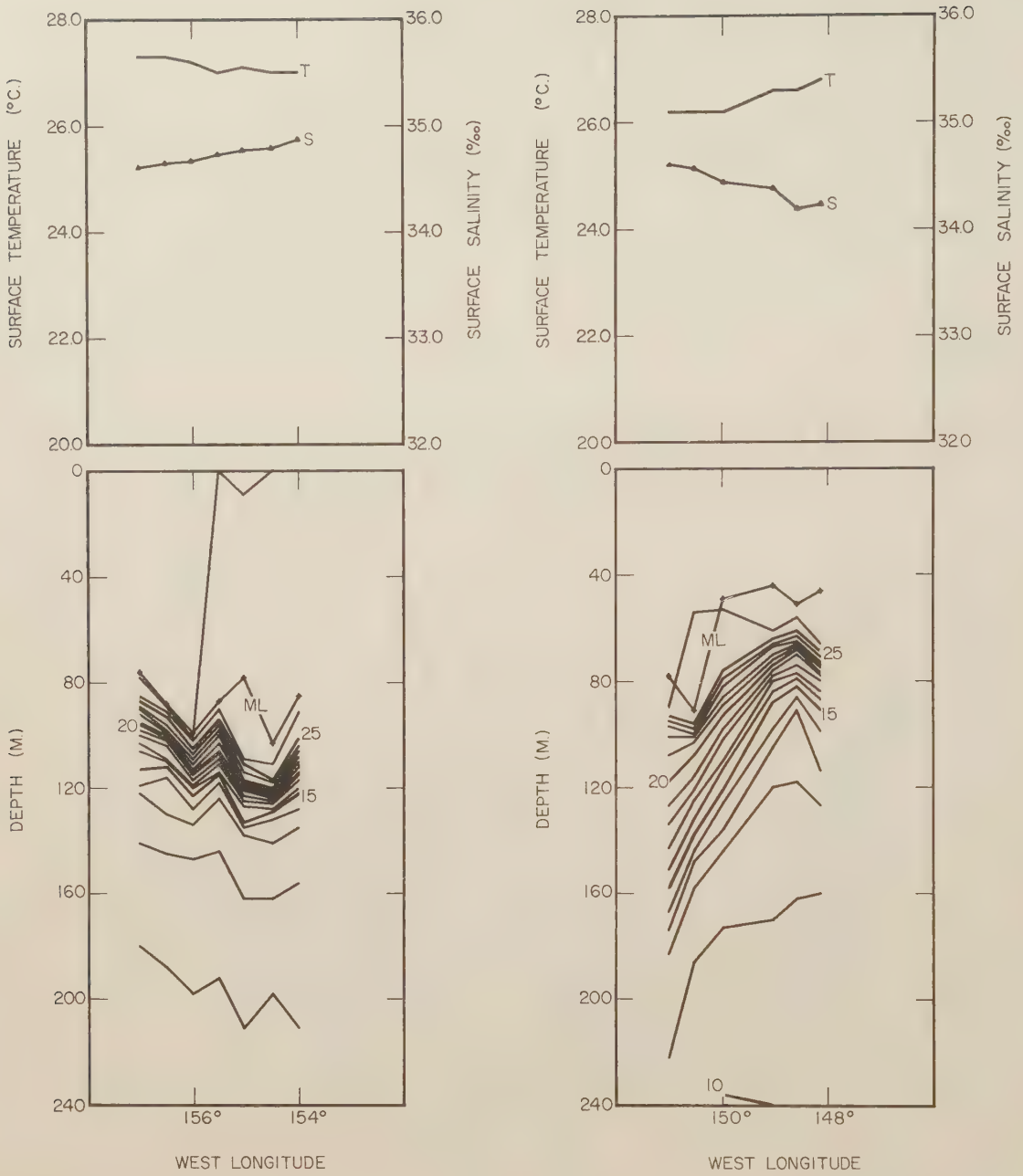

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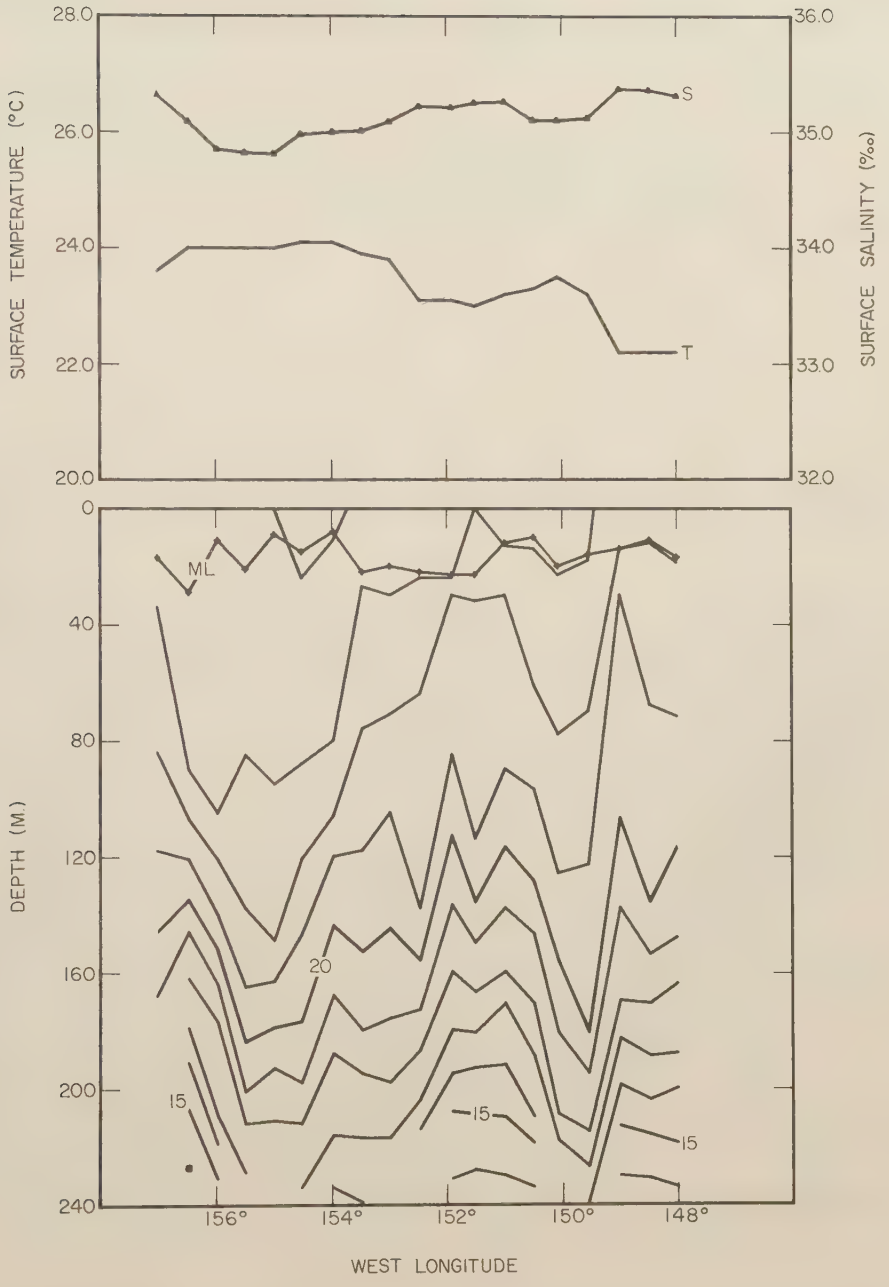

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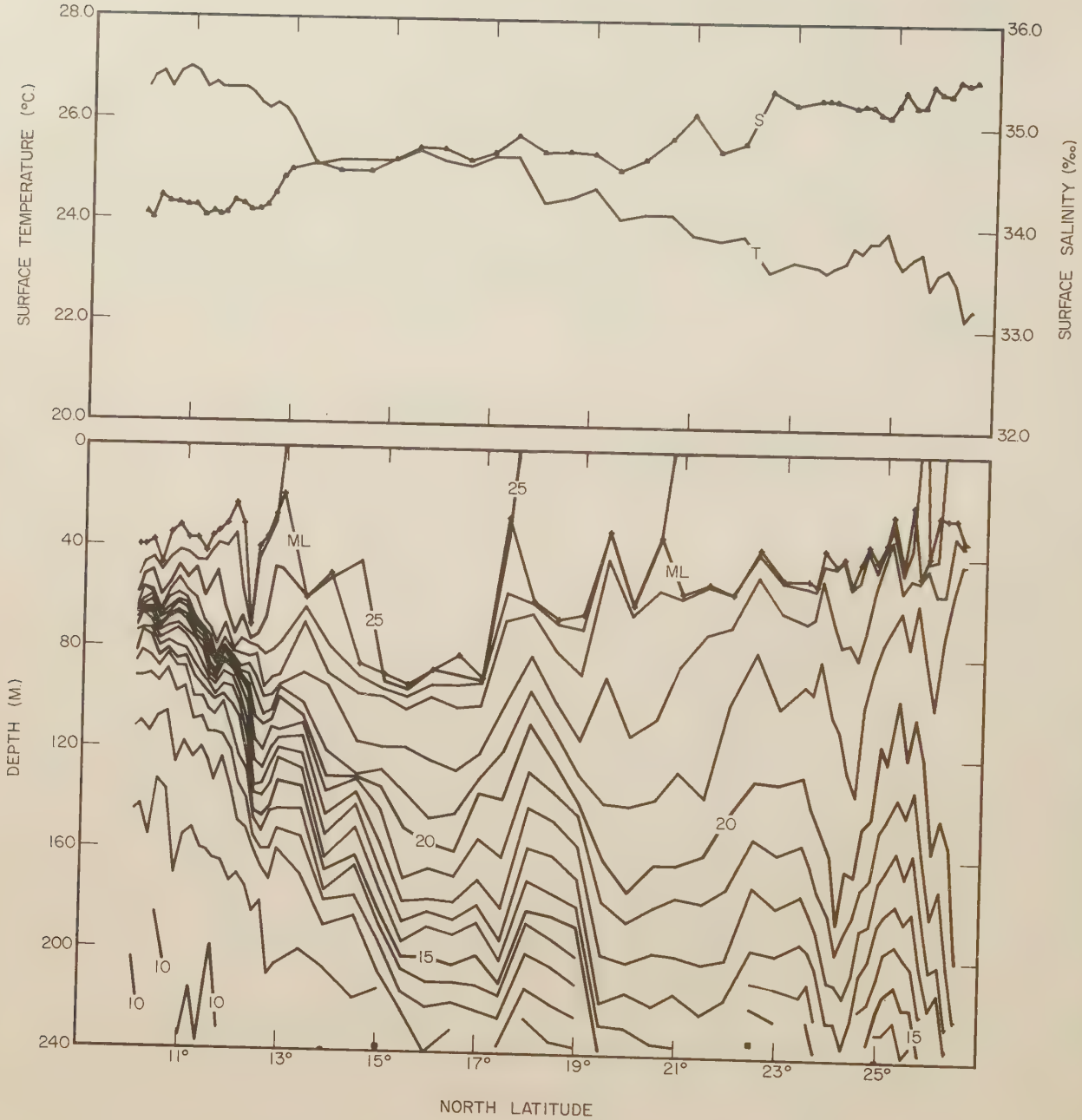

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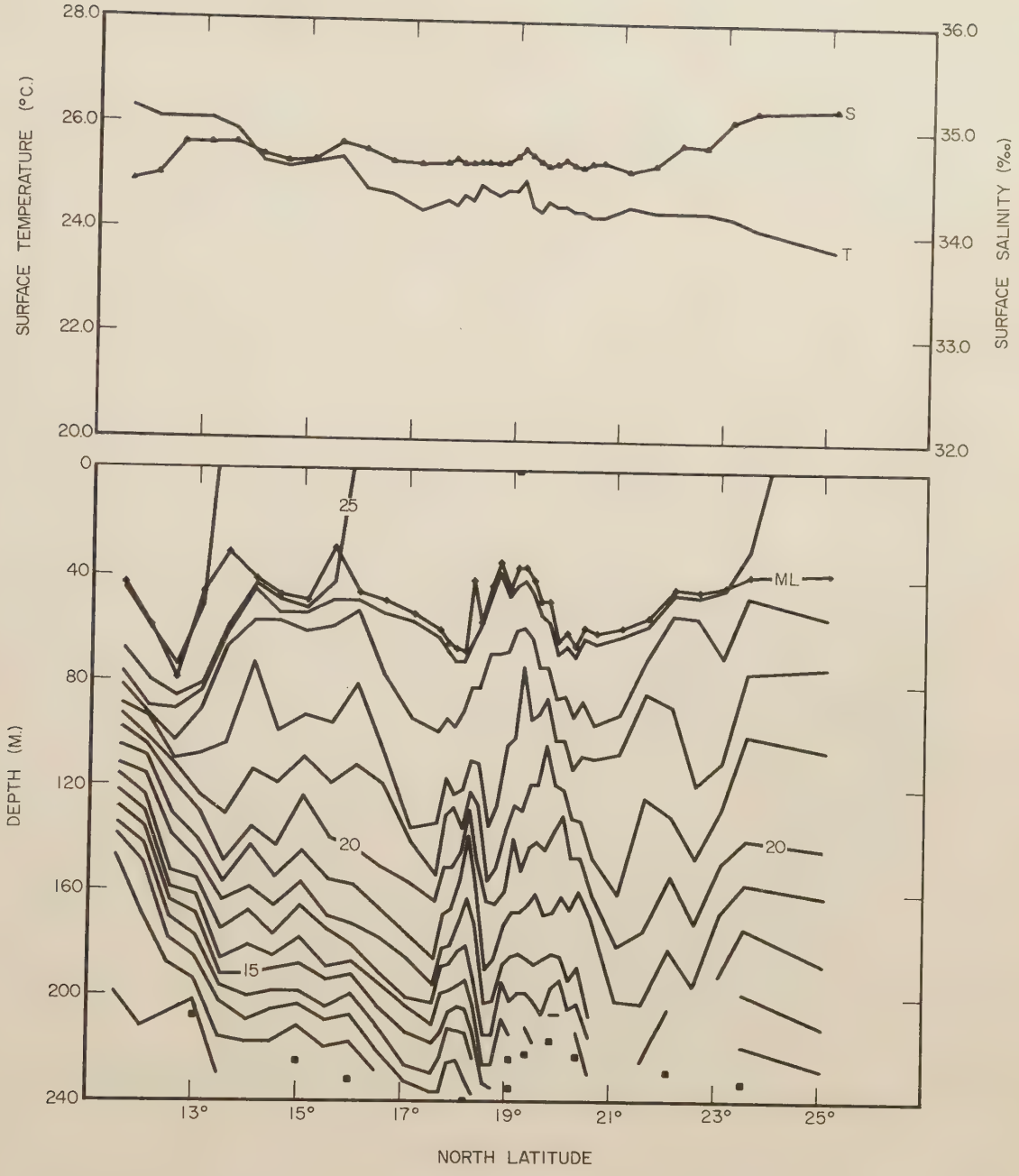

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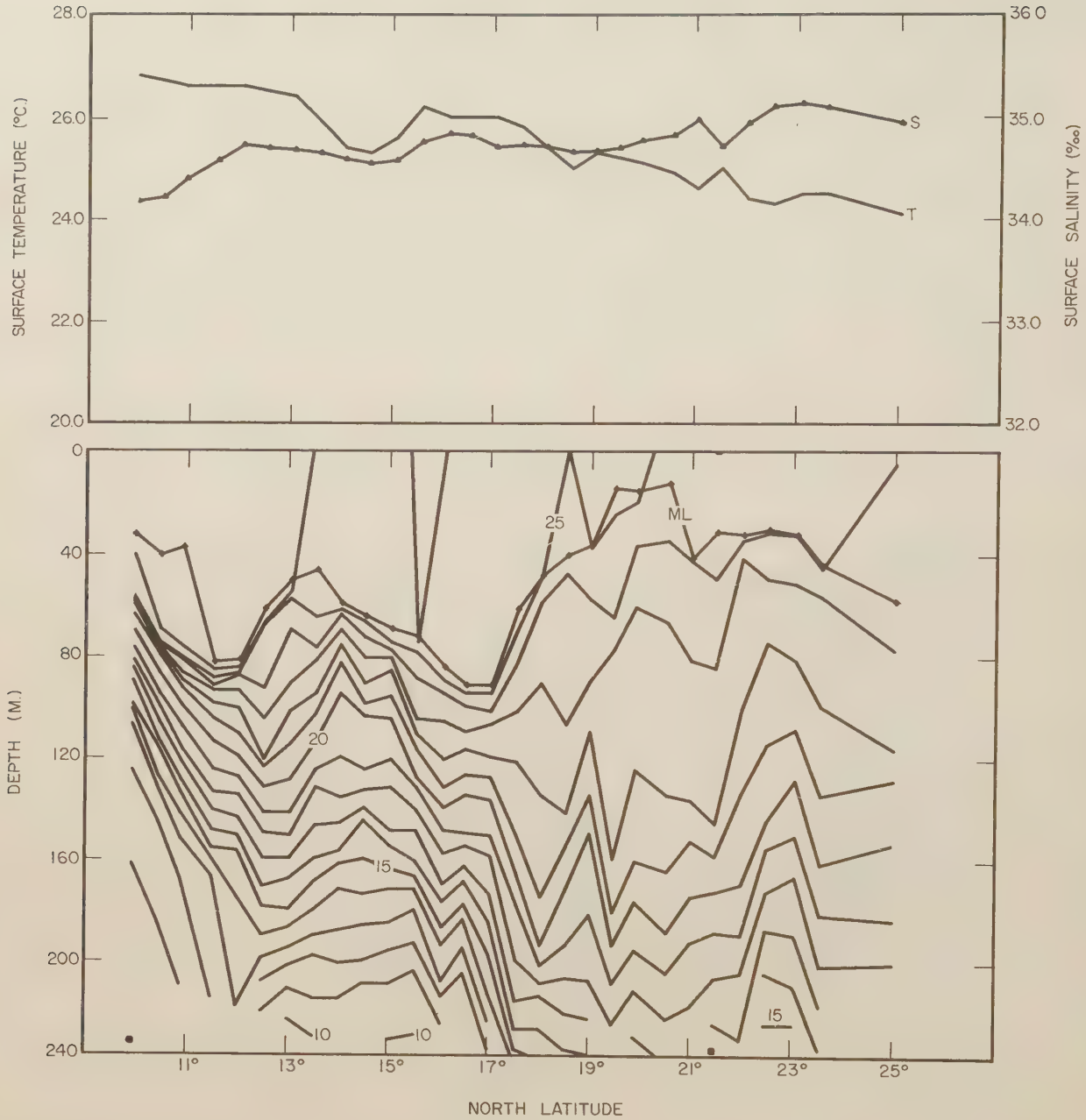

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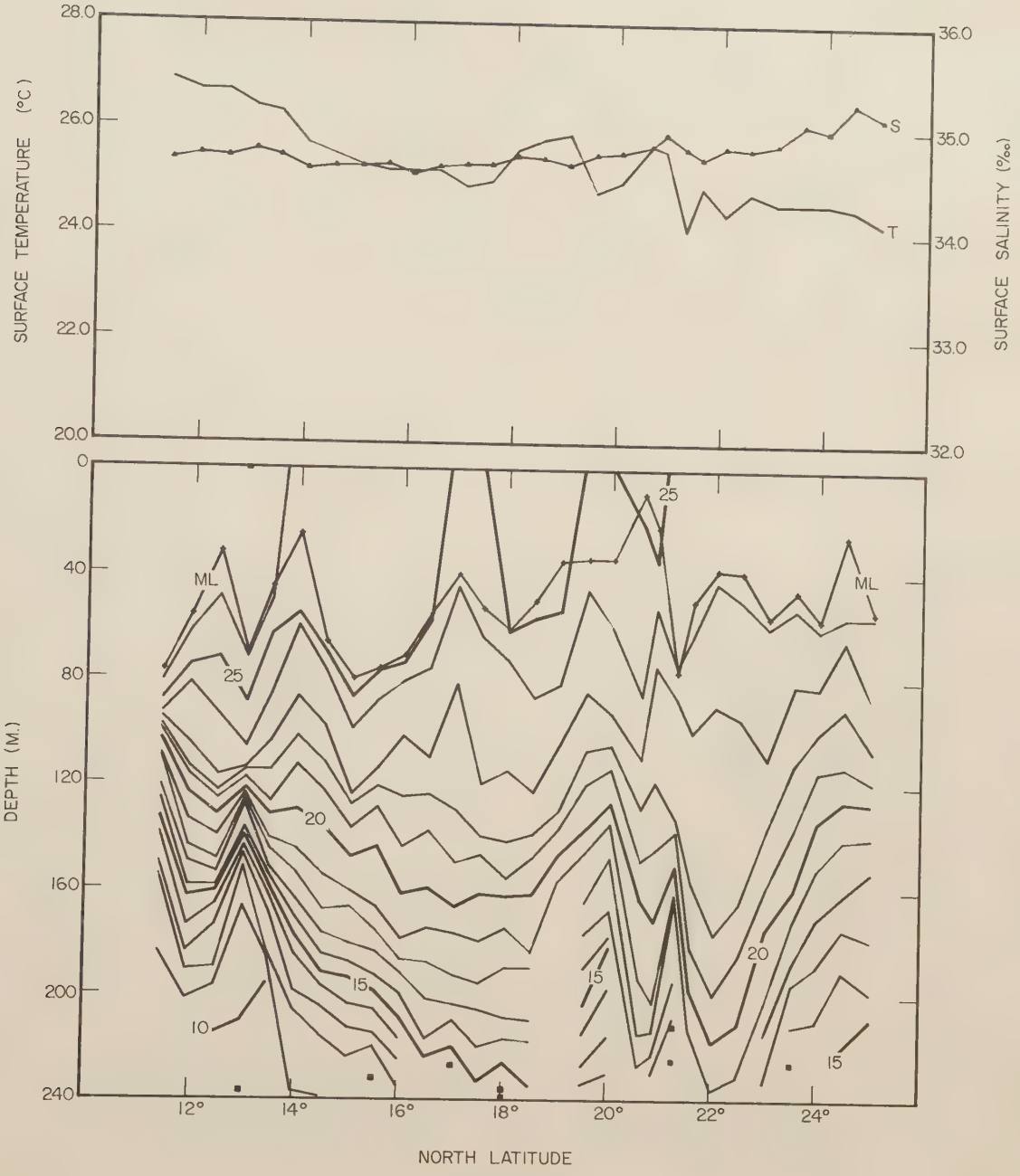

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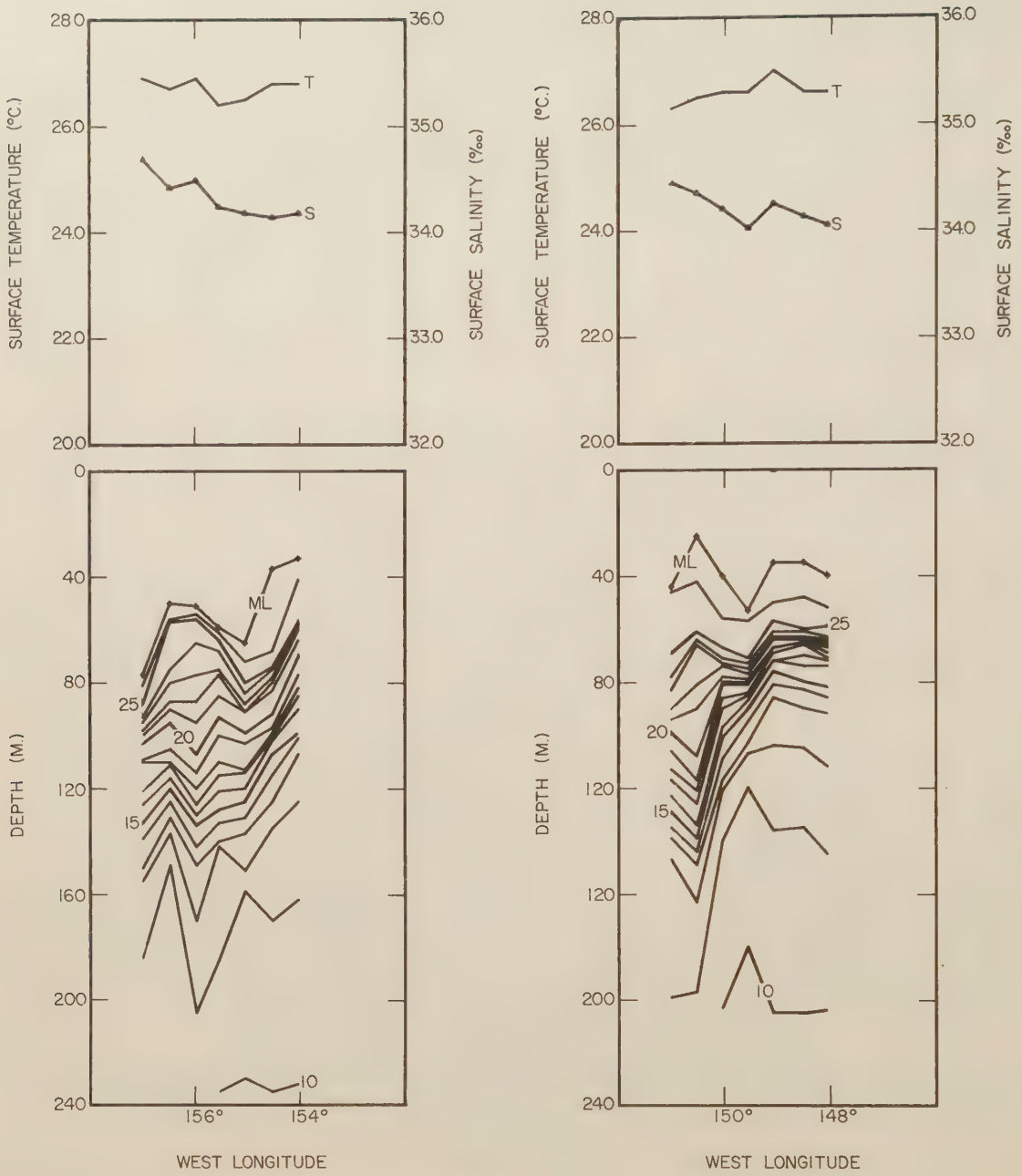

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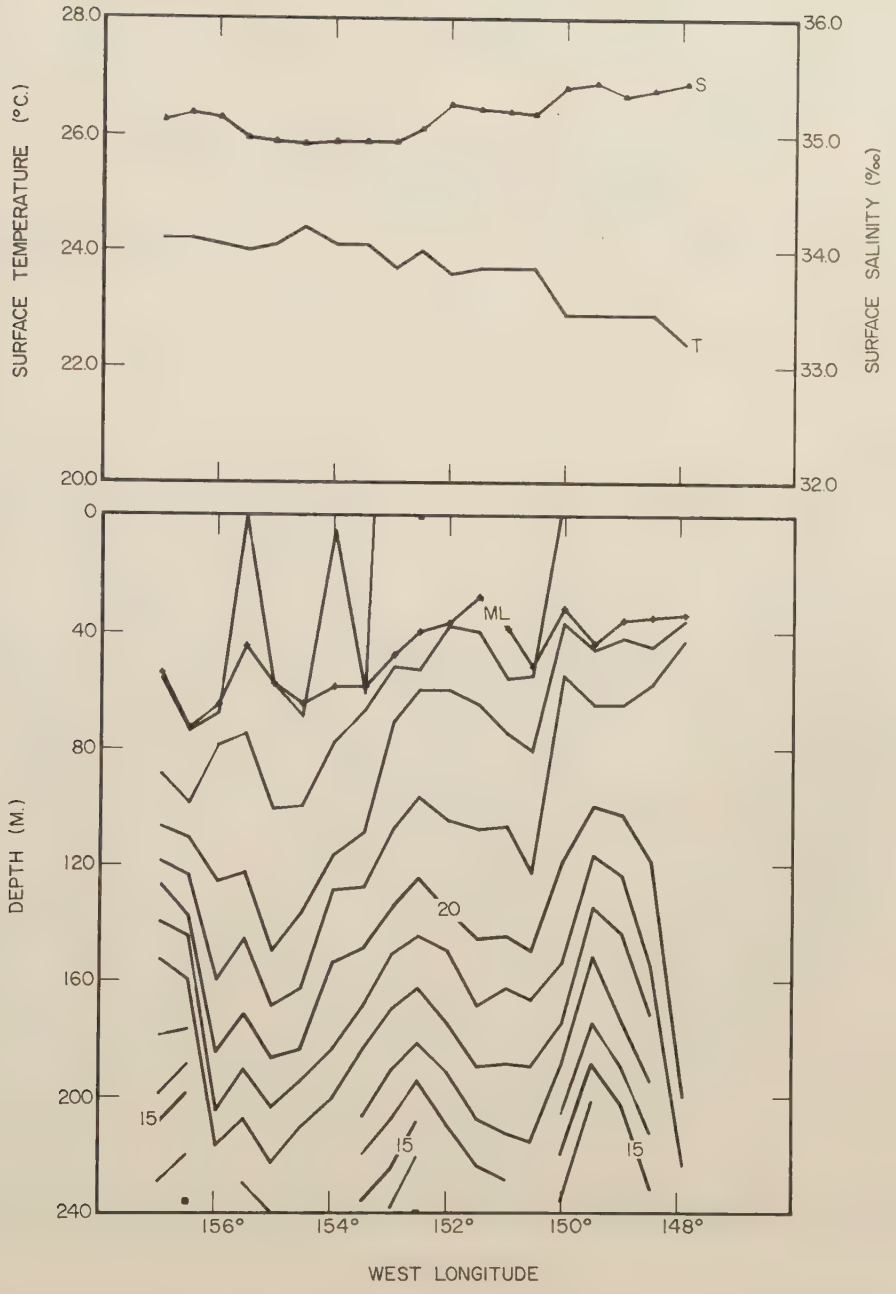

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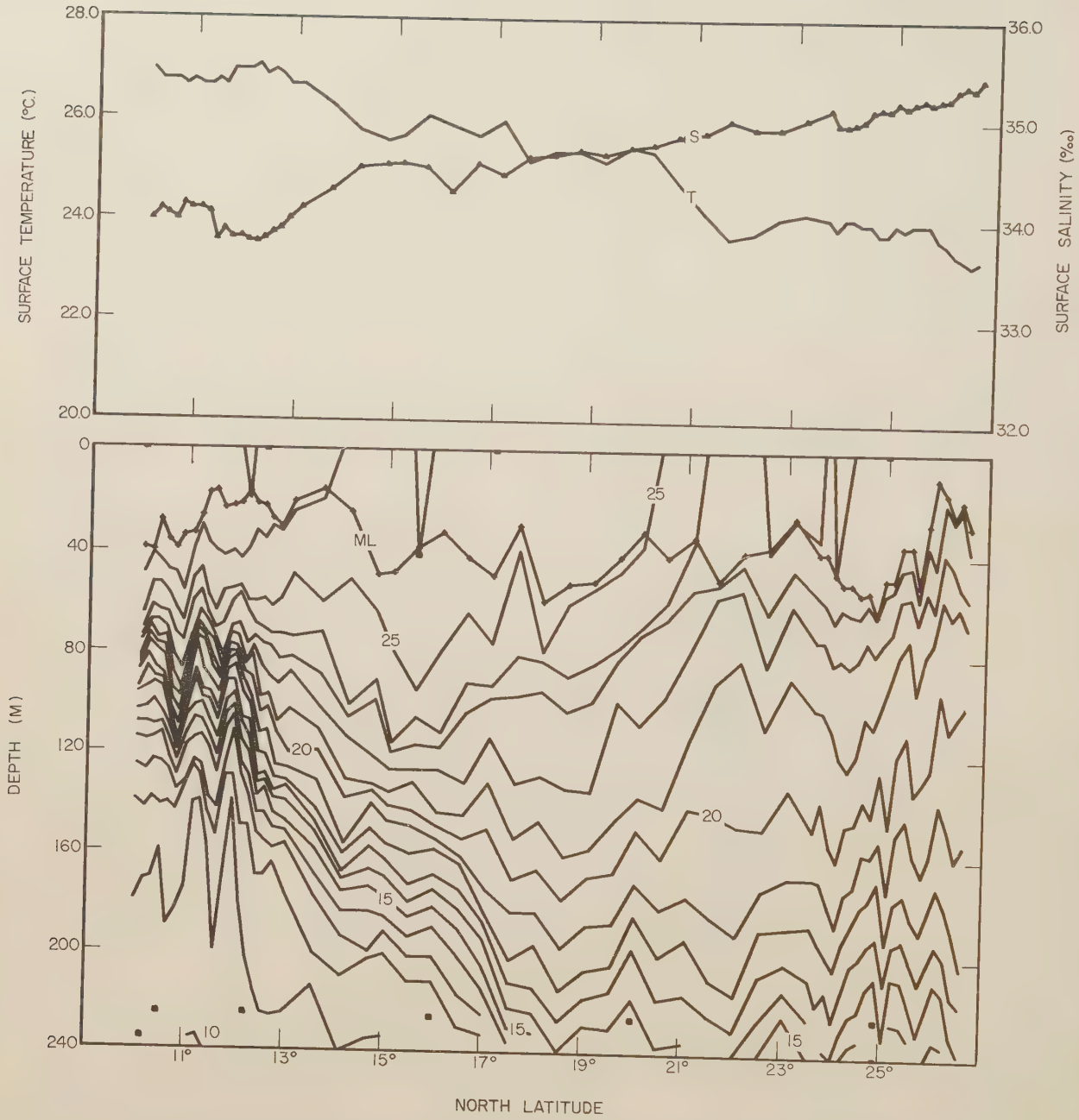

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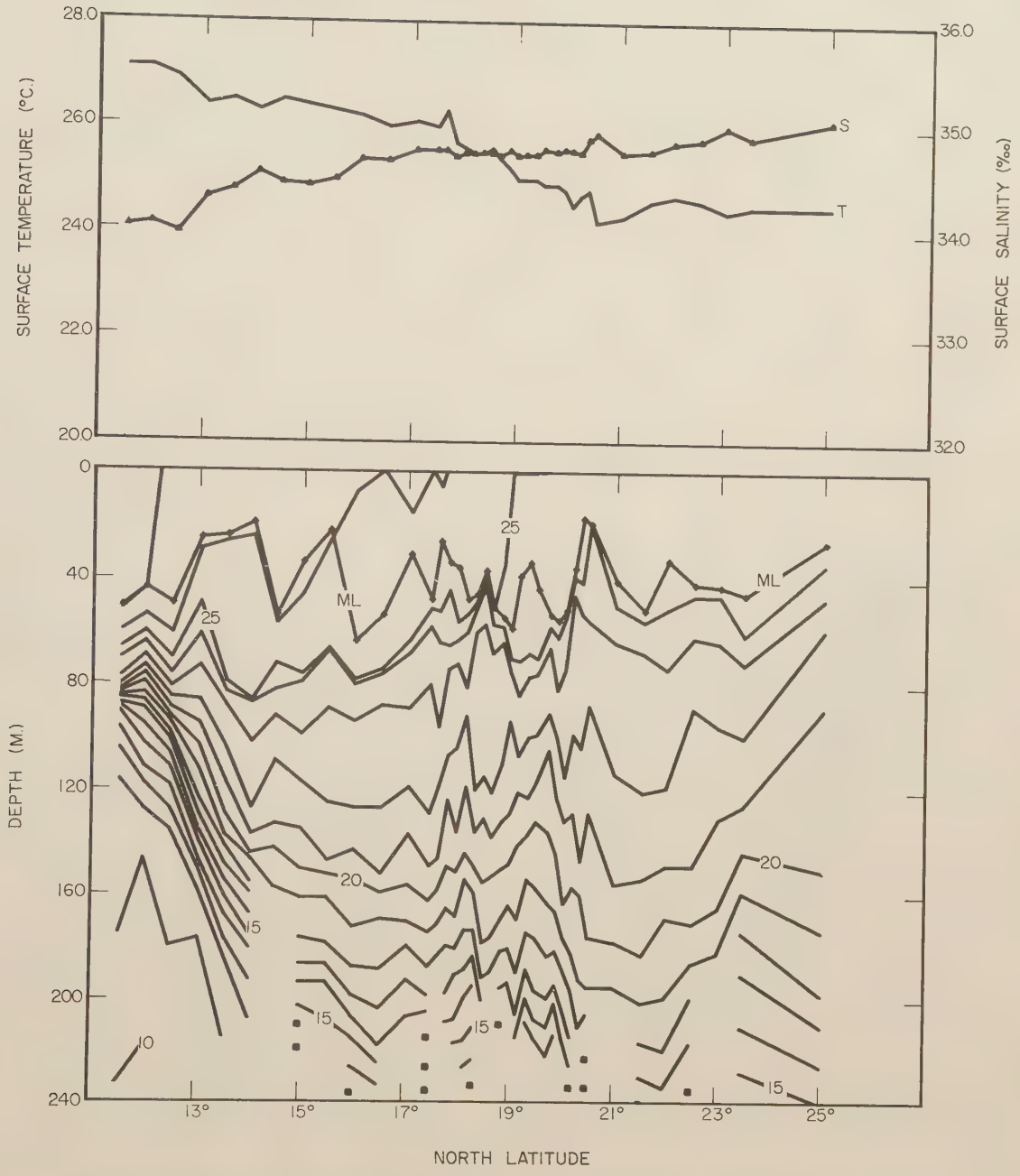


Figure 15.--Surface temperatures (° C.) and salinities (°/oo) (upper panel) and BT temperature (° C.) section (lower panel) for Townsend Cromwell cruise 6 along long. 151° W. The bottom of the ML (mixed layer) is shown by the starred line in the lower panel.

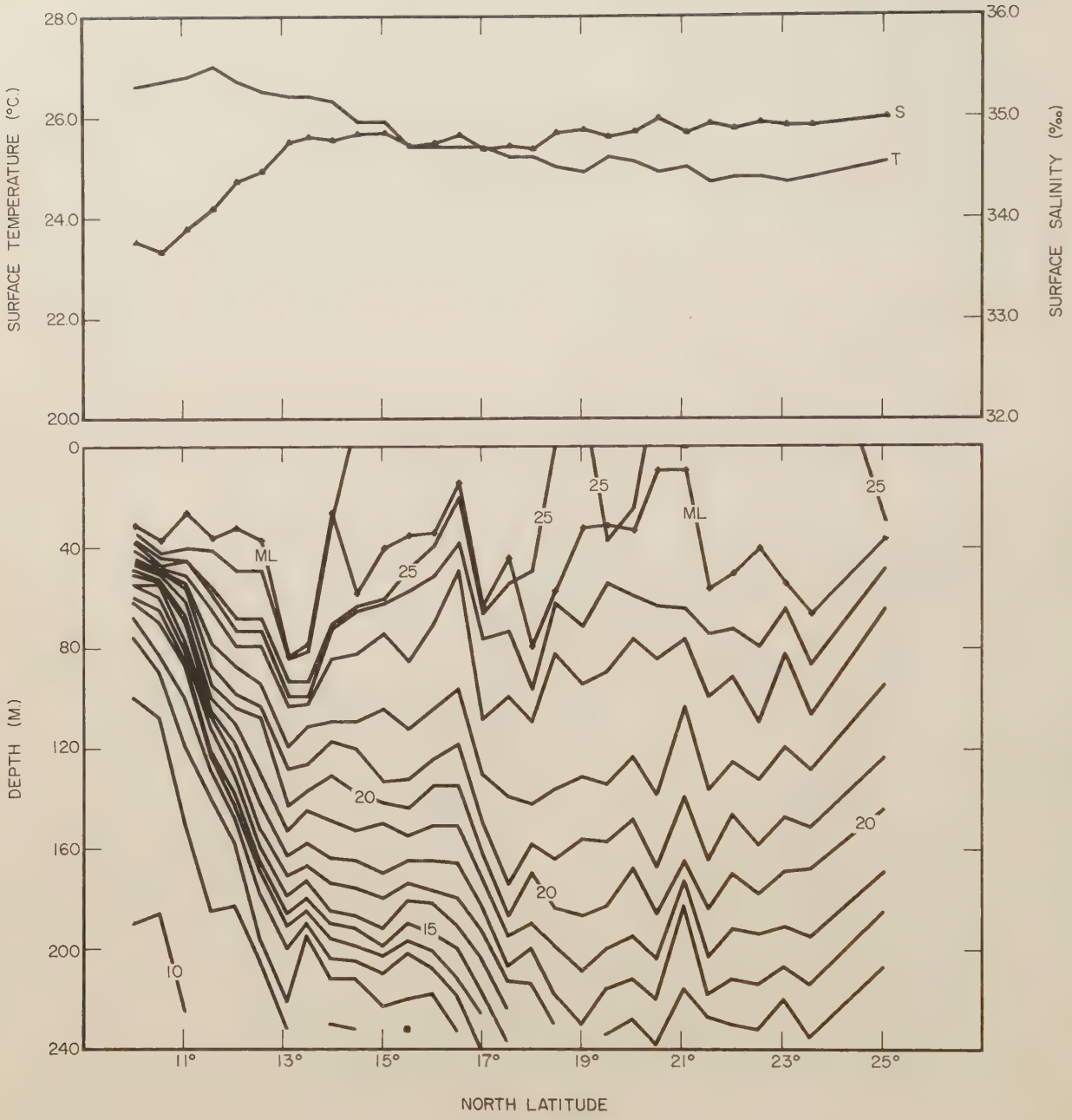


Figure 16.--Surface temperatures (° C.) and salinities (°/oo) (upper panel) and BT temperature (° C.) section (lower panel) for Townsend Cromwell cruise 6 along long. 154° W. The bottom of the ML (mixed layer) is shown by the starred line in the lower panel.

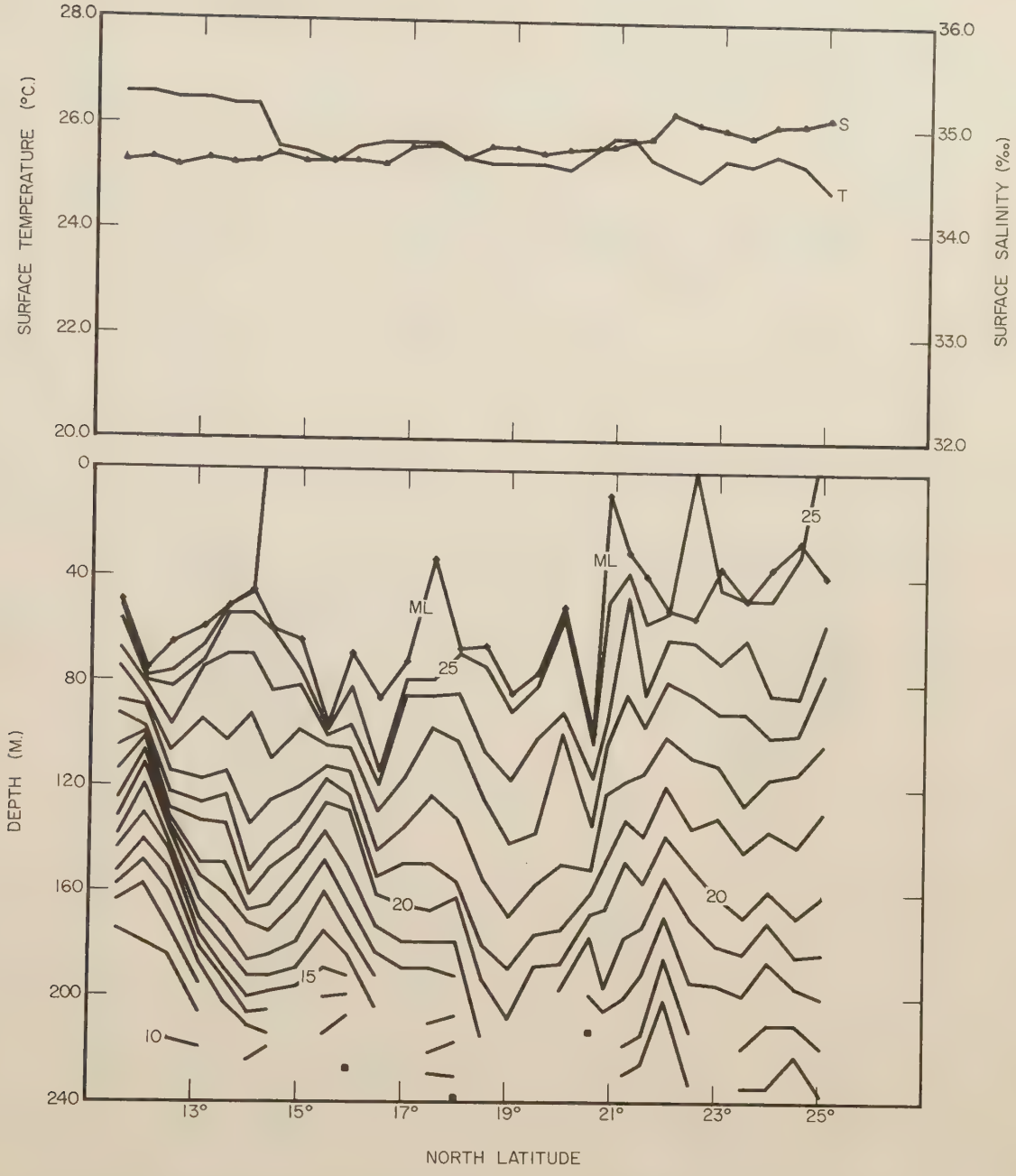


Figure 17.--Surface temperatures (° C.) and salinities (°/oo) (upper panel) and BT temperature (° C.) section (lower panel) for Townsend Cromwell cruise 6 along long. 157° W. The bottom of the ML (mixed layer) is shown by the starred line in the lower panel.

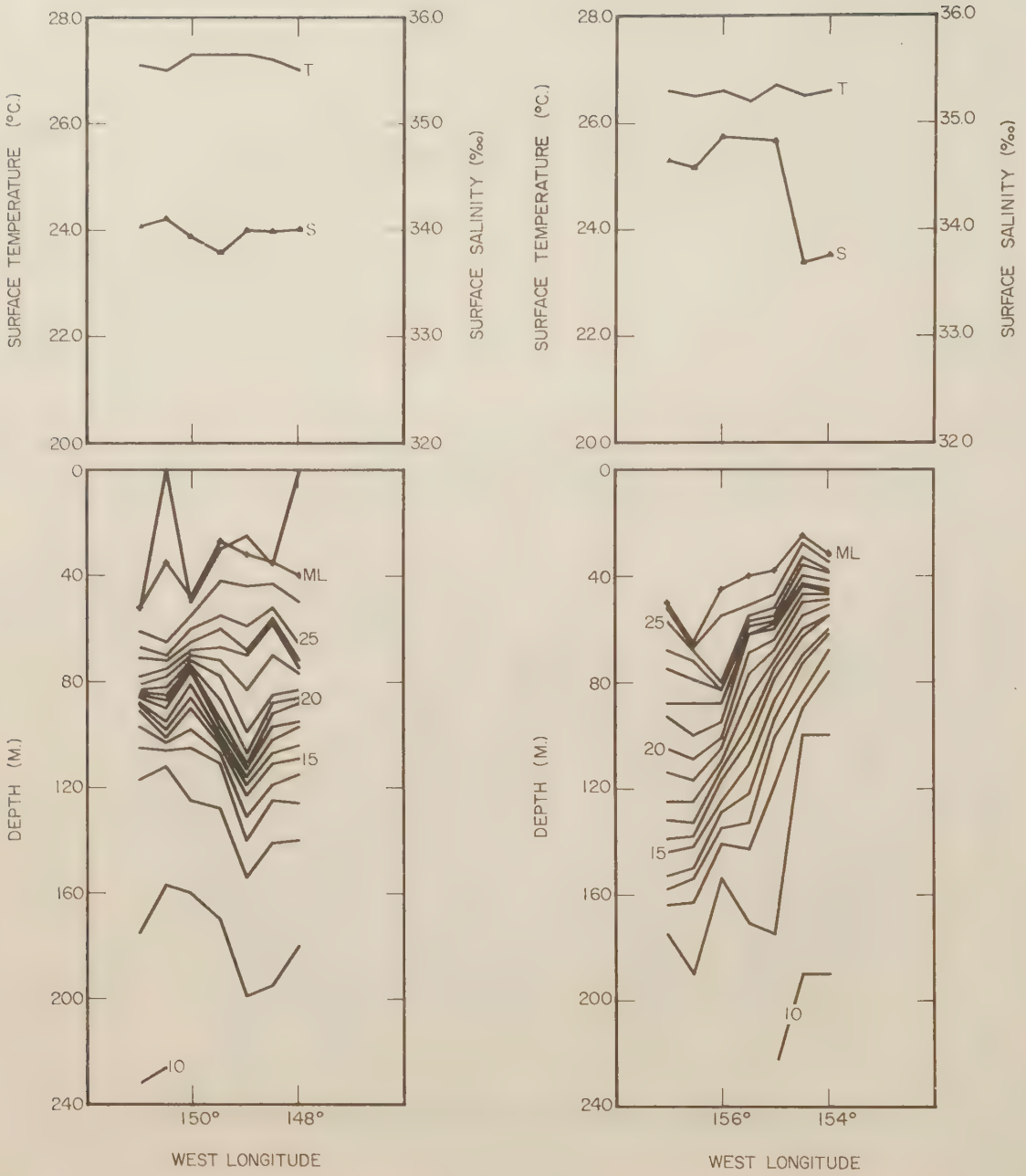


Figure 18.--Surface temperatures (° C.) and salinities (°/oo) (upper panel) and zonal BT temperature (° C.) section (lower panel) for Townsend Cromwell cruise 6 between stations 7 and 7A, 25 and 26. The bottom of the ML (mixed layer) is shown by the starred line in the lower panel.

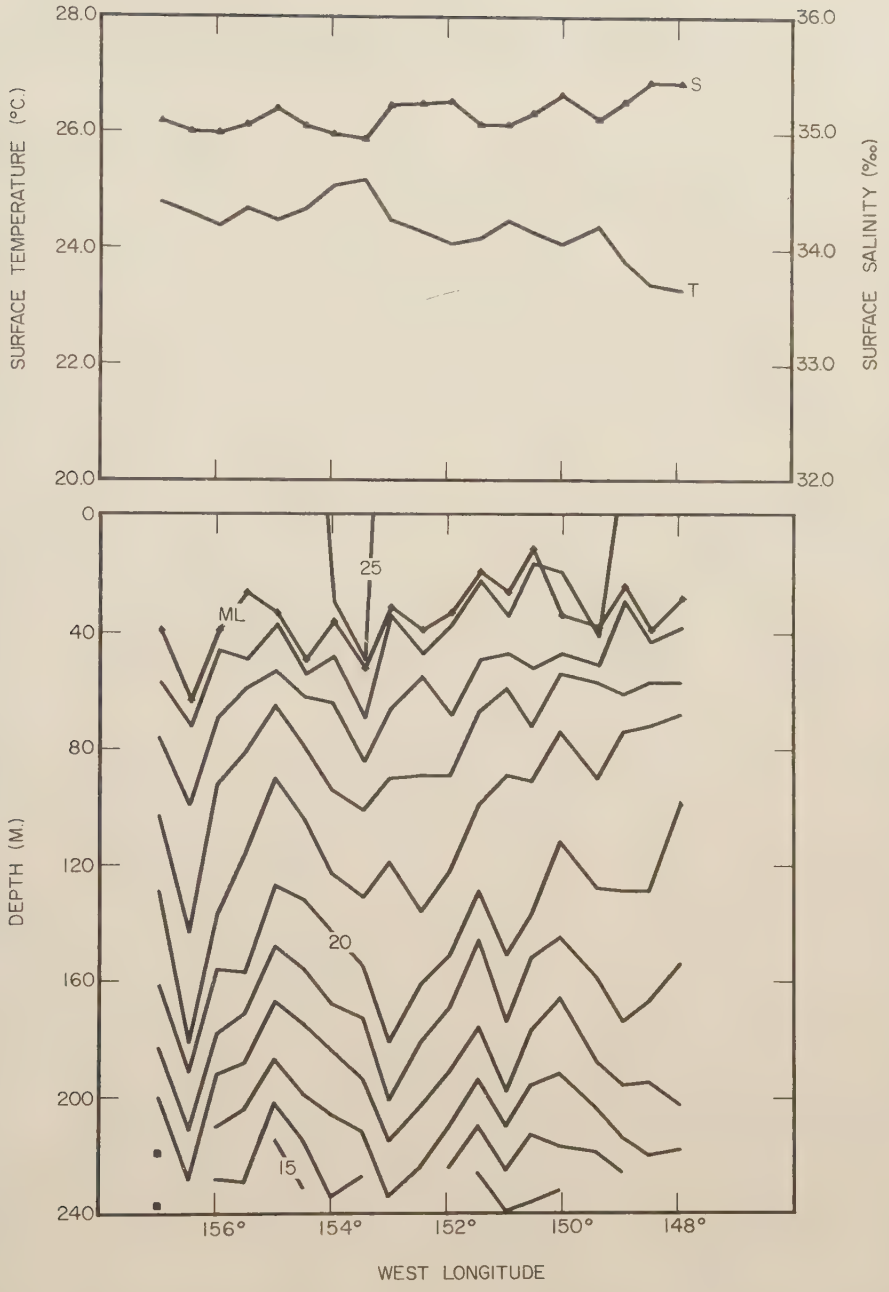


Figure 19.--Surface temperatures (° C.) and salinities (°/oo) (upper panel) and zonal BT temperature (° C.) section (lower panel) for Townsend Cromwell cruise 6 between stations 37 and 40. The bottom of the ML (mixed layer) is shown by the starred line in the lower panel.

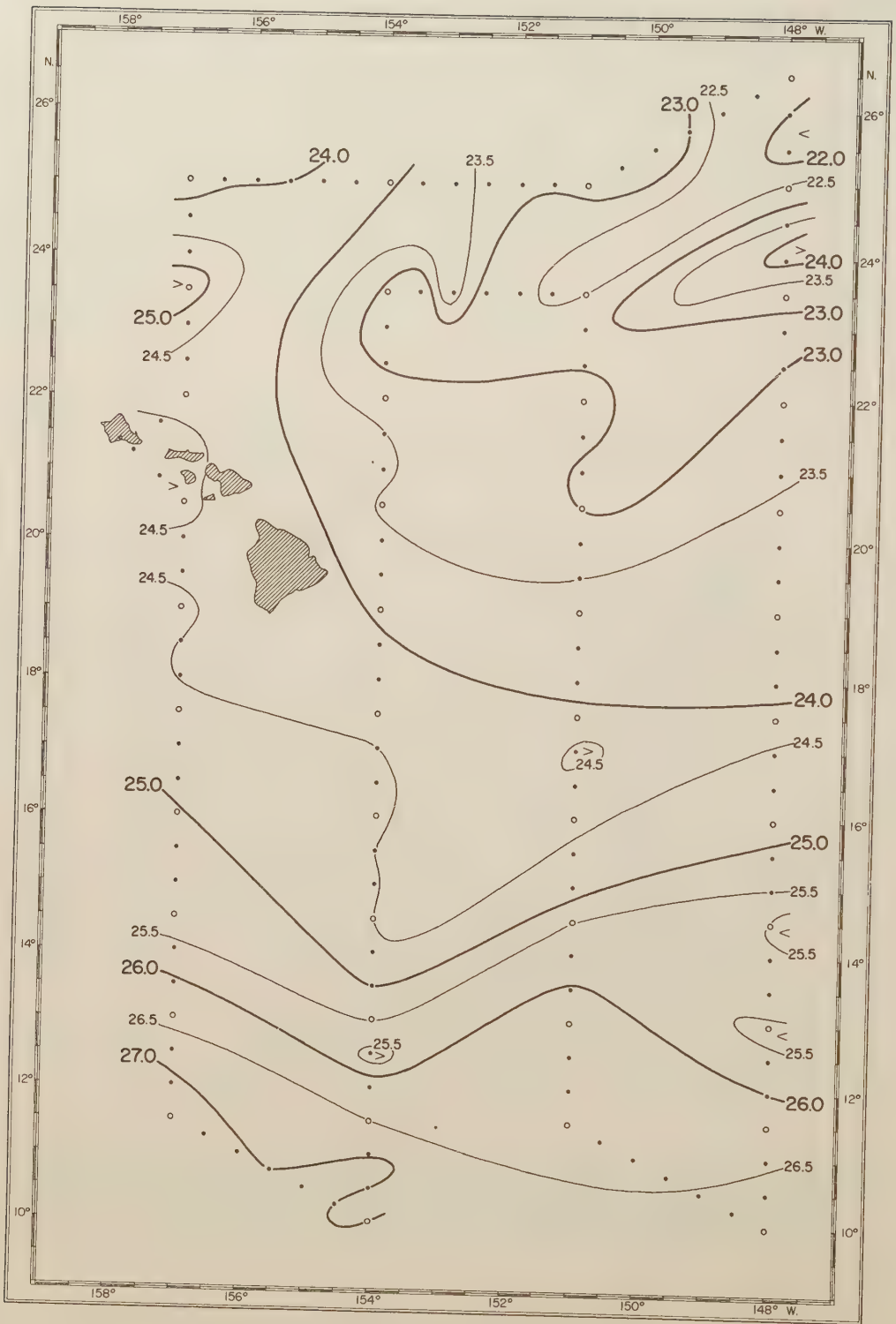


Figure 20.--Surface temperature distribution (° C.) based on bucket temperature at each BT cast for Townsend Cromwell cruise 4.

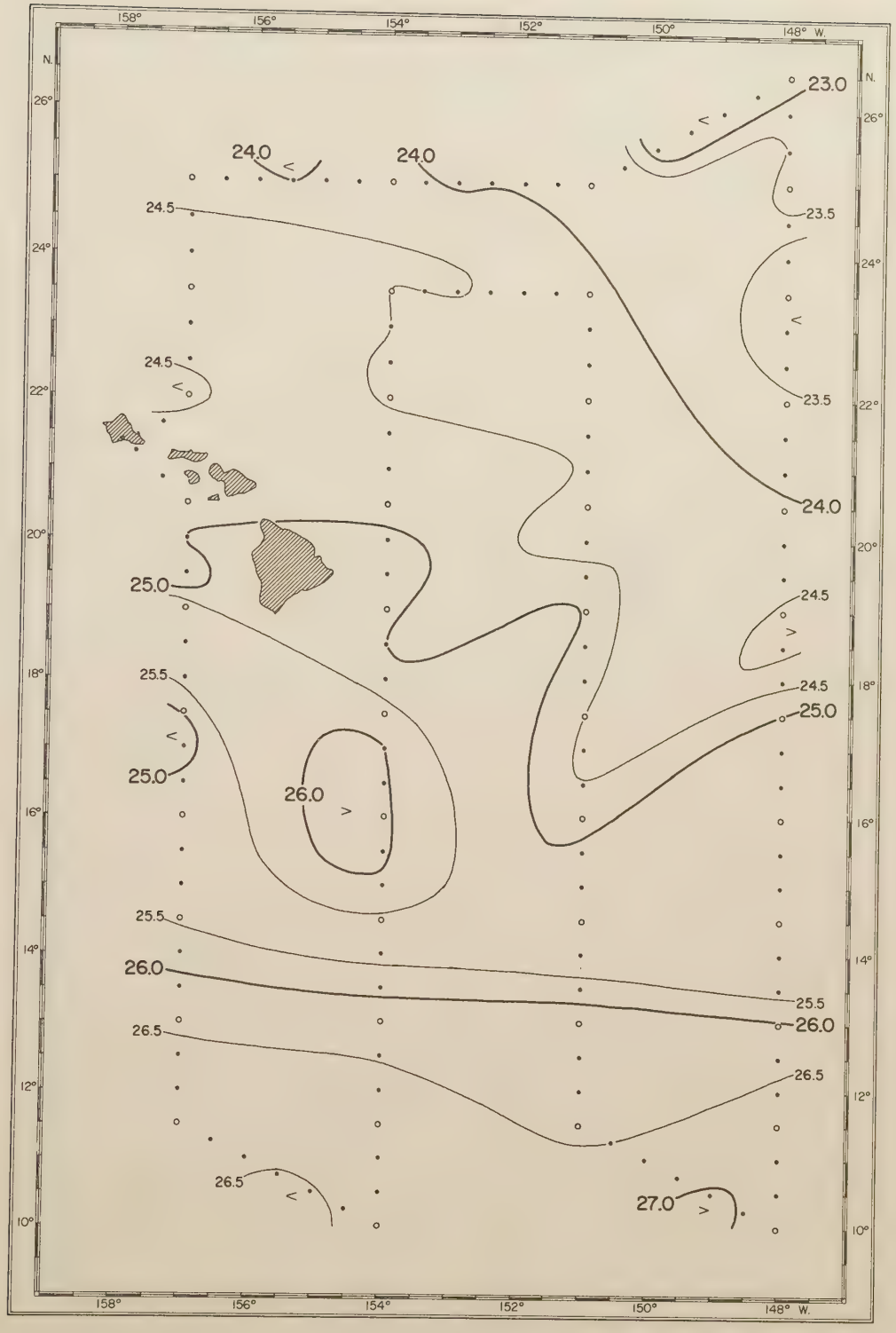


Figure 21.--Surface temperature distribution (° C.) based on bucket temperature at each BT cast for Townsend Cromwell cruise 5.

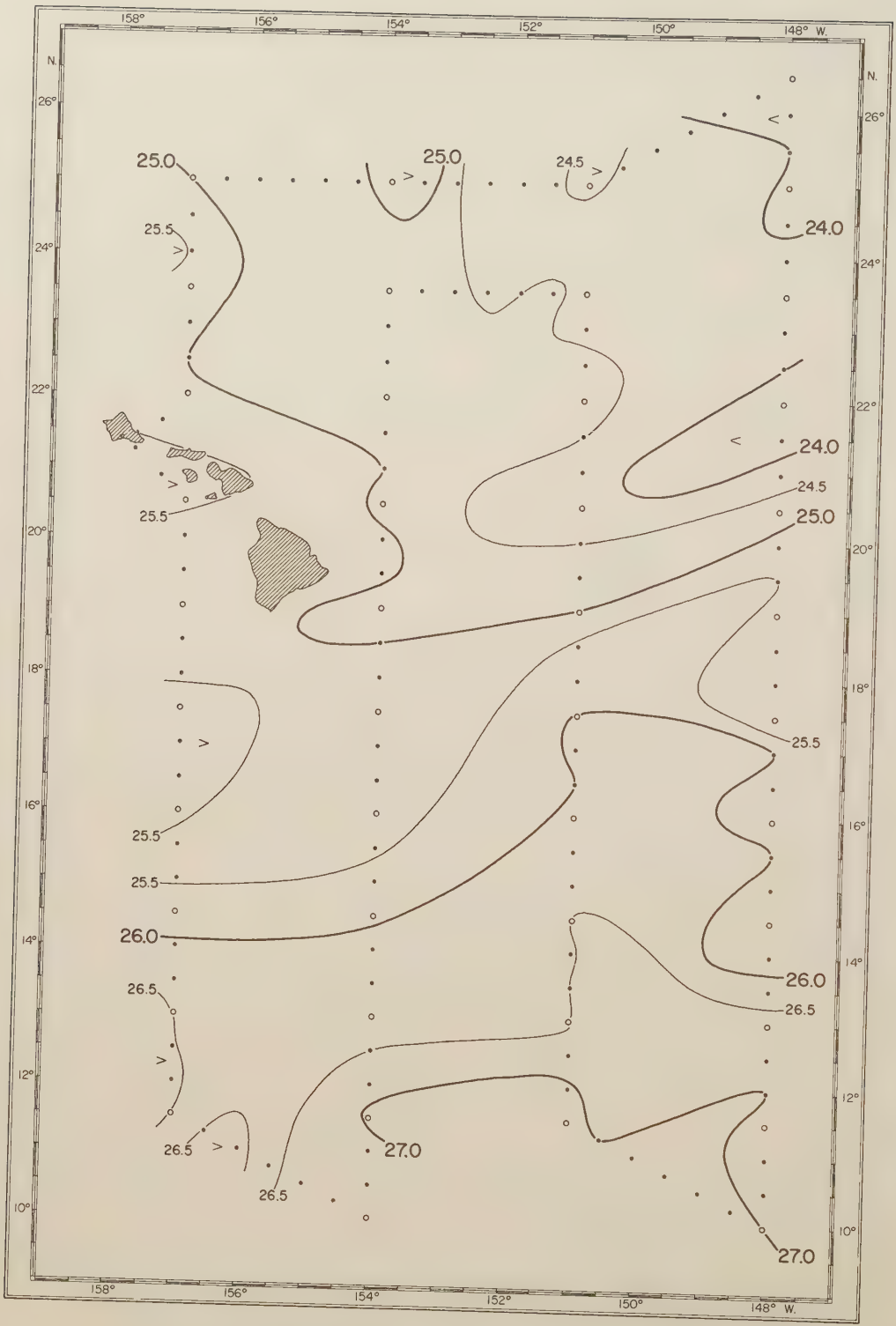


Figure 22.--Surface temperature distribution (° C.) based on bucket temperature at each BT cast for Townsend Cromwell cruise 6.

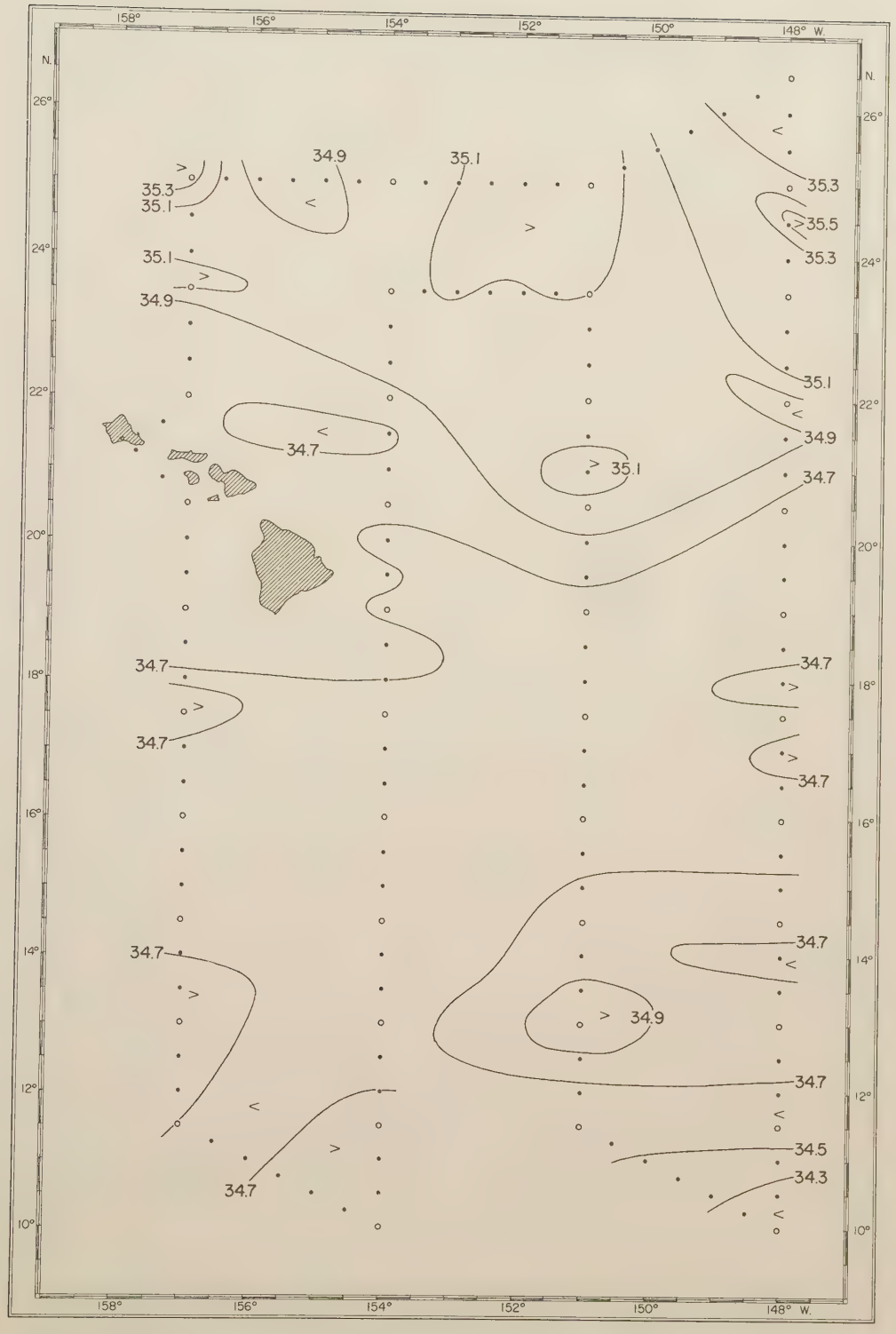


Figure 23.--Surface salinity distribution (°/oo) from bucket salinity samples at each BT cast for Townsend Cromwell cruise 4.

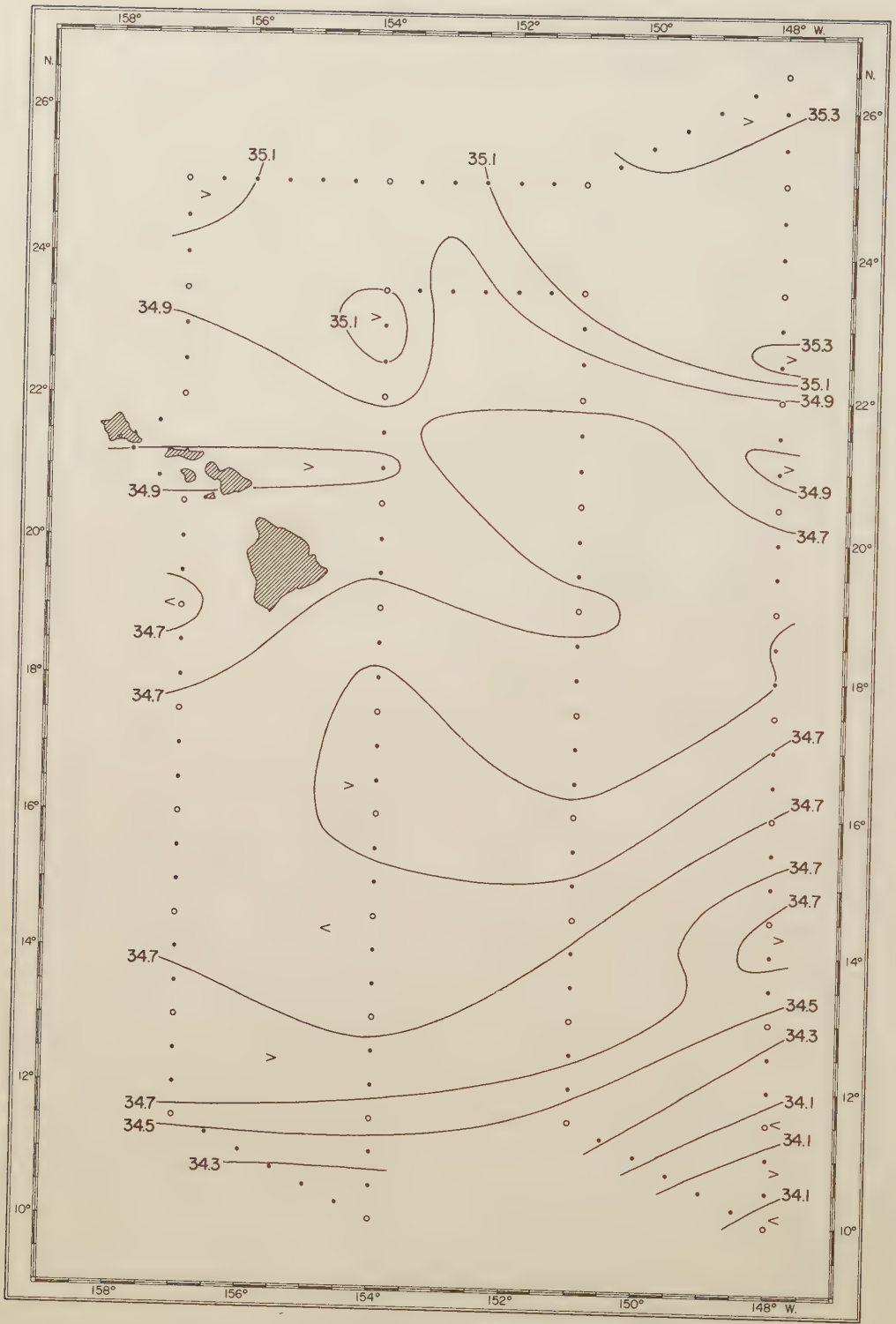


Figure 24.--Surface salinity distribution (°/oo) from bucket salinity samples at each BT cast for Townsend Cromwell cruise 5.

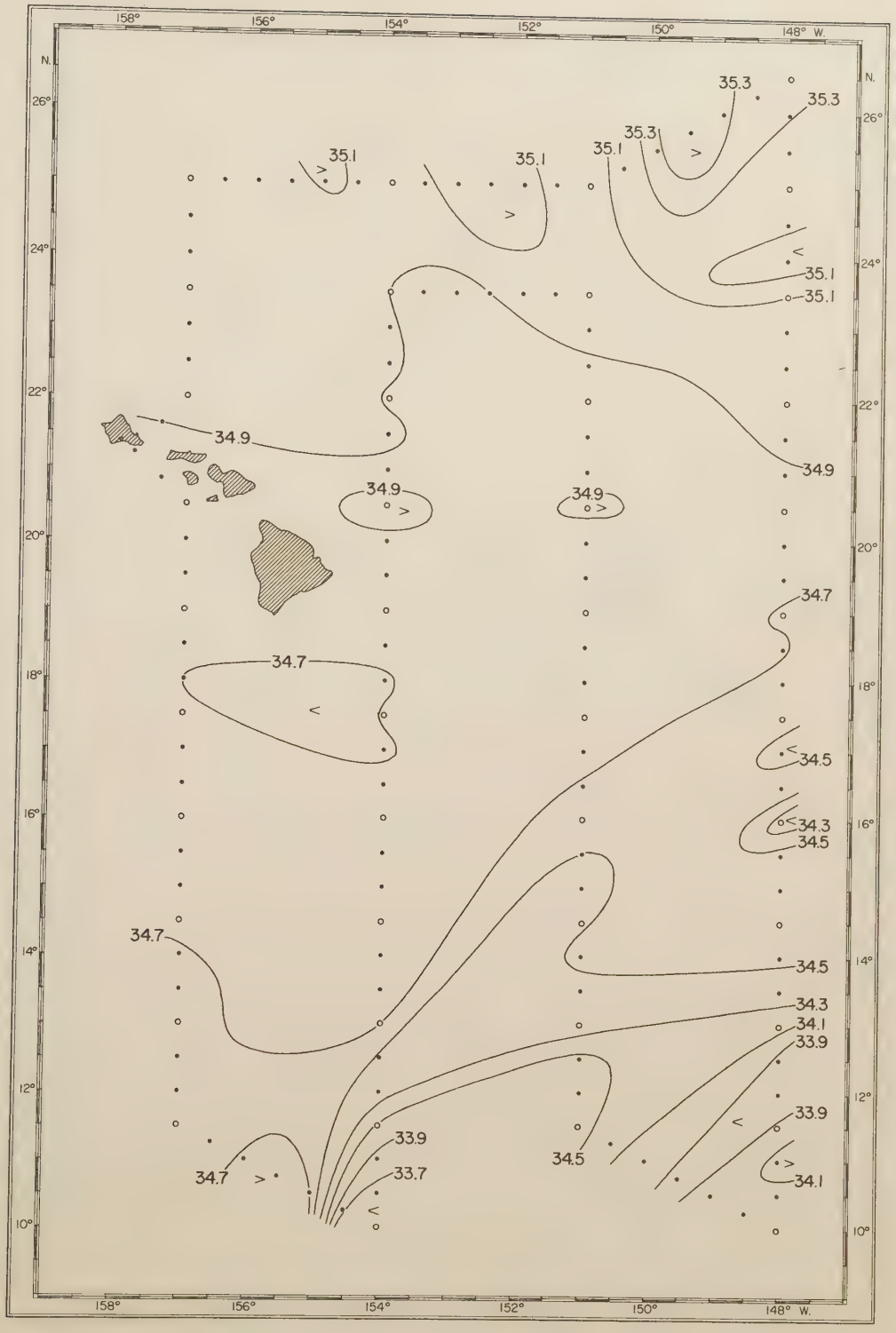


Figure 25.--Surface salinity distribution (°/oo) from bucket salinity samples at each BT cast for Townsend Cromwell cruise 6.

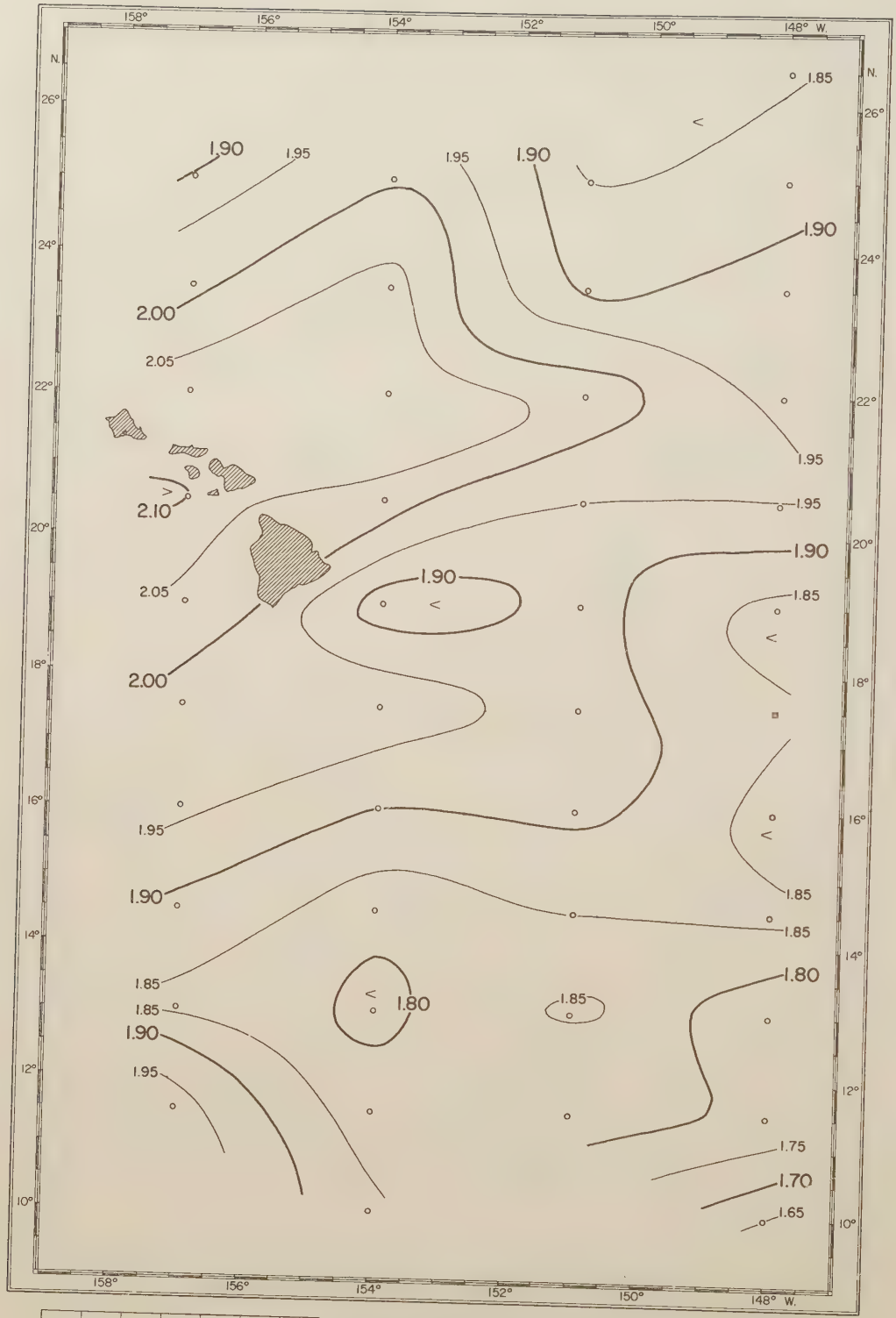
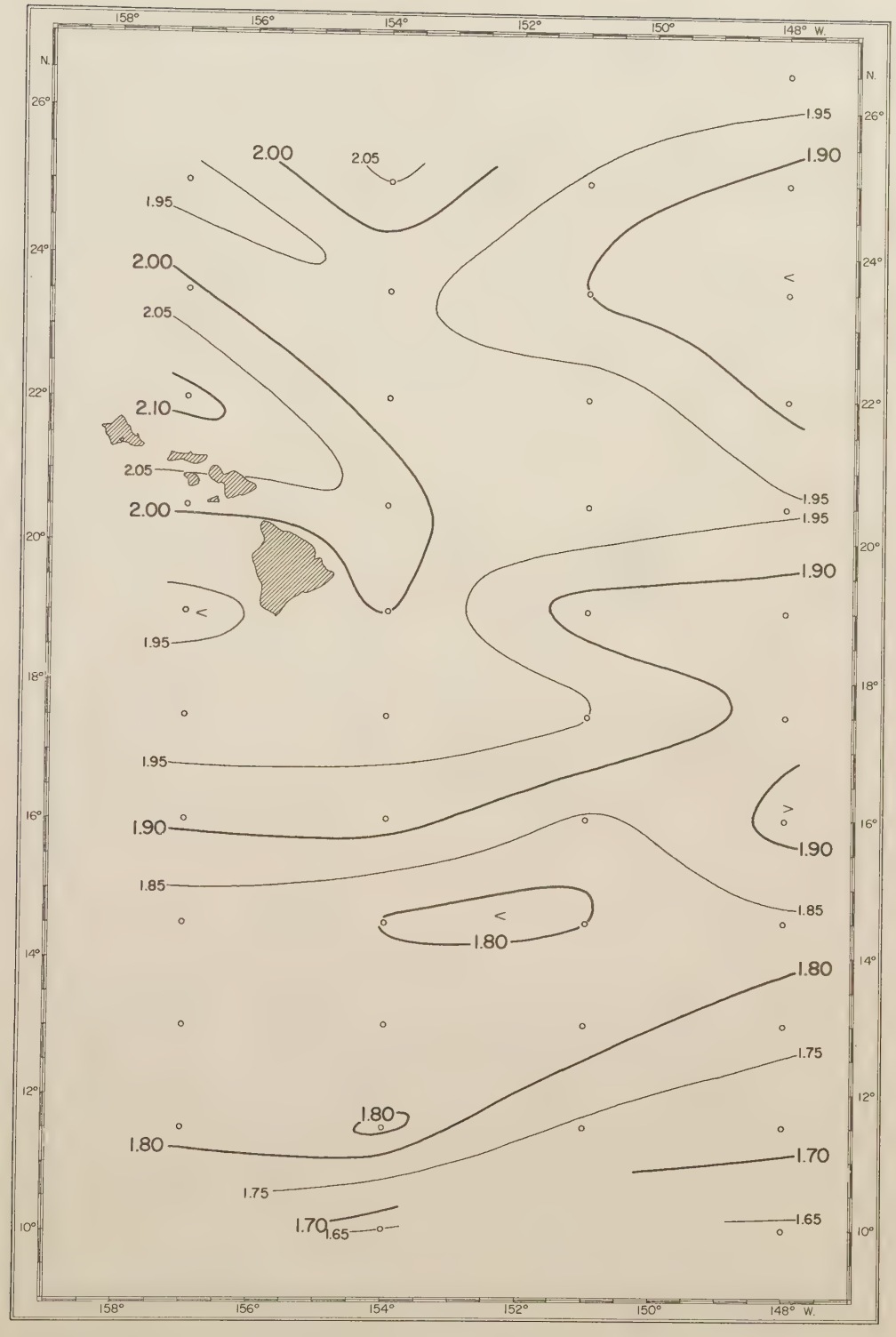


Figure 26.--Dynamic topography (dynamic meters) relative to 1,200 m. for Townsend Cromwell cruise 4.



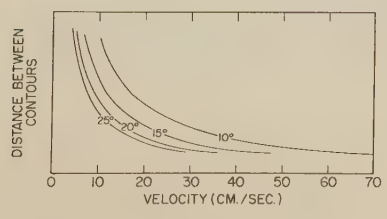
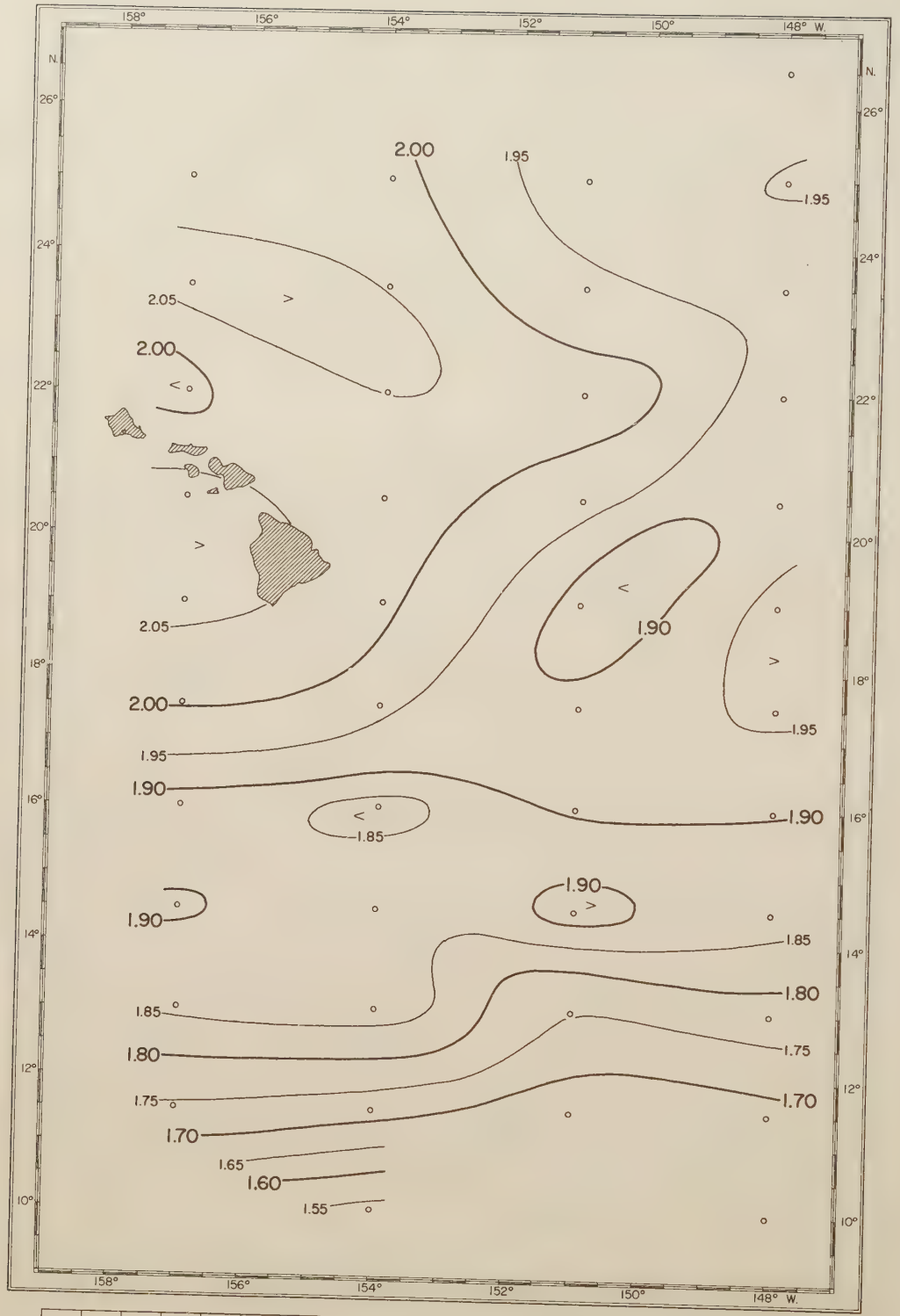


Figure 27.--Dynamic topography (dynamic meters) relative to 1,200 m. for Townsend Cromwell cruise 5.



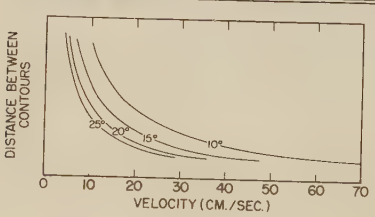


Figure 28.--Dynamic topography (dynamic meters) relative to 1,200 m. for Townsend Cromwell cruise 6.

TABLES

Information printed in the station heading has the following units or coding. Latitude and longitude are in degrees and minutes. Wet and dry bulb temperatures are in degrees Celsius. Wind speed is in knots. Barometric pressure is in tens and units of millibars (initial 9 or 10 omitted). Wind direction, weather, visibility, cloud type, and cloud cover are coded in the manner described by the International Ship Weather Code.

The observed data are presented in the following units: Depth in meters; temperature in degrees Celsius; salinity in grams per kilogram; oxygen in milliliters per liter; and phosphate (PO_4-P) in microgram-atoms per liter.

The derived data are listed with the following units: Density anomaly as sigma-t; specific volume anomaly (delta) in 10^5 cubic centimeters per gram; and dynamic depth anomaly (dyn. dpth.) in dynamic meters.

Table 1.--Original and derived oceanographic data for Townsend Cromwell cruise 4

CROMWELL 4, STATION 1, 20-35N LAT, 157-15W LONG, MAY 17, 1964, 2400 G.C.T.
DRY BULB 25.7 WET BULB 19.8 WIND SPEED 03, DIR. 08 BAR. 16 WEATHER 02 VIS. 8 CLOUD TYPE 7, COVER 4

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA				
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.12	34.84			23.21	467.8	0.	25.12	34.84	23.21	467.8	0.000
9.Δ	24.80	34.85			23.31	458.2	10.	24.79	34.85	23.31	457.8	0.047
30.Δ	24.75	34.85			23.32	457.6	20.	24.71	34.85	23.34	455.9	0.093
49.	24.71	34.84			23.33	457.9	30.	24.75	34.85	23.32	457.6	0.139
73.	24.34	35.10			23.64	429.5	50.	24.70	34.85	23.34	457.0	0.231
96.	23.43	35.09			23.90	405.4	75.	24.26	35.10	23.66	427.1	0.342
119.	23.00	35.10			24.03	393.7	100.	23.38	35.09	23.91	404.1	0.447
143.	21.27	35.08			24.50	349.5	150.	21.01	35.08	24.57	343.3	0.635
166.	20.29	35.04			24.73	327.9	200.	17.20	34.76	25.30	274.4	0.791
180.	18.98	34.95			25.01	302.2	250.	13.68	34.40	25.81	226.6	0.917
211.	16.30	34.65			25.43	262.5	300.	11.38	34.24	26.13	195.8	1.024
236.	14.60	34.47			25.67	239.7	400.	8.83	34.15	26.50	161.5	1.204
259.	13.13	34.36			25.89	218.8	500.	6.94	34.18	26.80	133.2	1.353
282.	12.03	34.28			26.04	204.3	600.	5.74	34.26	27.02	112.1	1.477
374.	9.42*	34.16			26.41	169.8	700.	5.21	34.36	27.17	99.1	1.583
468.	7.50	34.16			26.71	141.9	800.	4.85	34.44	27.27	89.9	1.679
561.	6.05	34.22			26.95	118.7	1000.	4.11	34.51	27.40	77.7	1.848
748.	5.10	34.41			27.22	94.6	1200.	3.53	34.55	27.50	69.1	1.997
935.	4.29	34.49			27.37	80.6						
1122.	3.81	34.53			27.45	73.4						
1406.	3.04	34.57			27.56	63.3						

CROMWELL 4, STATION 2, 19- ON LAT, 157- OW LONG, MAY 17, 1964, 1100 G.C.T.
DRY BULB 24.2 WET BULB 21.5 WIND SPEED 14, DIR. 05 BAR. 17 WEATHER 00 VIS. 8 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.64	34.72			23.26	462.6	0.	24.64	34.72	23.26	462.6	0.000
5.	24.60	34.74			23.29	460.2	10.	24.54	34.75	23.31	457.9	0.046
51.	24.10	34.80			23.48	443.4	20.	24.41	34.76	23.36	453.7	0.092
76.	24.10	34.89			23.55	437.9	30.	24.30	34.78	23.40	450.0	0.138
100.	23.62	34.95			23.74	421.0	50.	24.11	34.80	23.48	443.7	0.228
122.	23.15	35.04			23.94	402.3	75.	24.10	34.89	23.55	438.2	0.339
145.	21.92	35.10			24.34	365.3	100.	23.62	34.95	23.74	421.0	0.447
167.	20.60	35.07			24.67	333.7	150.	21.60	35.10	24.42	357.1	0.643
185.	19.94	35.01			24.80	321.9	200.	18.94	34.93	25.00	303.2	0.810
215.	17.74	34.83			25.22	282.4	250.	15.20	34.56	25.61	246.2	0.948
240.	15.76	34.62			25.53	253.6	300.	11.69	34.22	26.06	203.1	1.061
267.	14.22	34.46			25.74	233.5	400.	8.55	34.15	26.55	156.9	1.243
290.	12.25	34.26			25.99	210.1	500.	6.65	34.23	26.89	124.9	1.385
384.	8.98	34.15			26.48	163.7	600.	5.80	34.33	27.07	107.9	1.503
473.	7.01	34.21			26.82	131.3	700.	5.28	34.40	27.19	97.0	1.606
558.	6.09	34.29			27.00	114.0	800.	4.89	34.45	27.27	89.8	1.701
731.	5.17	34.42			27.22	94.6	1000.	4.23	34.49	27.38	80.6	1.873
904.	4.52	34.47			27.33	84.6	1200.	3.64	34.52	27.47	72.5	2.028
1076.	4.02	34.50			27.41	77.8						
1338.	3.28	34.54			27.51	67.9						

TEMPERATURE ERROR TERM AT 300. METERS IS 0.10

CROMWELL 4, STATION 3, 17-30N LAT, 157- OW LONG, MAY 18, 1964, 1900 G.C.T.
DRY BULB 25.0 WET BULB 22.0 WIND SPEED 18, DIR. 09 BAR. 17 WEATHER 03 VIS. 8 CLOUD TYPE 7, COVER 3

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.58	34.64			23.22	466.6	0.	24.58	34.64	23.22	466.6	0.000
10.Δ	24.59	34.63			23.21	468.0	10.	24.59	34.63	23.21	468.0	0.047
30.Δ	24.62	34.64			23.21	469.0	20.	24.60	34.63	23.20	468.6	0.094
50.	24.64	34.64			23.20	470.3	30.	24.62	34.64	23.21	469.0	0.141
71.	24.59	34.64			23.21	469.7	50.	24.64	34.64	23.20	470.3	0.236
95.	23.44	34.84			23.71	423.7	75.	24.42	34.67	23.28	463.1	0.354
119.	22.75	35.01			24.03	393.3	100.	23.31	34.88	23.78	417.0	0.465
142.	21.44	35.01			24.40	359.0	150.	21.06	35.03	24.52	348.0	0.657
166.	20.32	35.04			24.73	328.7	200.	18.34	34.84	25.09	295.2	0.819
189.	19.18	34.93			24.94	308.9	250.	13.88	34.39	25.76	231.2	0.952
212.	17.28	34.73			25.26	278.9	300.	10.96	34.19	26.17	192.0	1.059
236.	14.94	34.48			25.60	246.1	400.	7.83	34.14	26.64	147.2	1.230
258.	13.34	34.35			25.84	223.6	500.	6.32	34.24	26.93	120.1	1.365
281.	11.88	34.24			26.04	204.5	600.	5.73	34.38	27.11	103.5	1.478
372.	8.54	34.14			26.54	157.3	700.	5.32	34.45	27.22	94.0	1.578
461.	6.72	34.18			26.83	129.3	800.	4.94	34.48	27.29	88.1	1.670
549.	6.00	34.32			27.04	110.5	1000.	4.20	34.52	27.40	78.1	1.838
726.	5.24	34.46			27.24	92.5	1200.	3.60	34.55	27.49	69.7	1.987
903.	4.54	34.49			27.34	83.3						
1082.	3.94	34.54			27.45	73.9						
1364.	3.20	34.58			27.55	64.2						

ΔFROM BT DATA
*INTERPOLATED DATA

Table 1.--Continued

CROMWELL 4, STATION 4, 15-58N LAT, 157- 1W LONG, MAY 19, 1964, 0400 G.C.T.
DRY BULB 25.1 WET BULB 22.1 WIND SPEED 14, DIR. 08 BAR. 14 WEATHER 01 VIS. 8 CLOUD TYPE 8, COVER 2

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.40	34.56			22.91	496.2	0.	25.40	34.56	22.91	496.2	0.000
11.	25.36	34.56			22.92	495.4	10.	25.36	34.56	22.92	495.5	0.050
54.	25.20	34.54			22.95	493.9	20.	25.37	34.54	22.90	497.5	0.100
78.	24.65	34.70			23.24	467.4	30.	25.35	34.53	22.90	498.3	0.150
104.	23.87	34.80			23.55	439.0	50.	25.24	34.53	22.94	495.2	0.250
131.	22.23	34.96			24.14	383.2	75.	24.73	34.68	23.20	471.2	0.372
157.	20.15	35.00			24.74	326.9	100.	24.02	34.79	23.49	444.2	0.487
182.	18.07	34.83			25.14	289.1	150.	20.74	35.01	24.59	341.3	0.685
209.	16.23	34.63			25.43	262.3	200.	16.87	34.70	25.33	271.2	0.839
234.	13.66	34.38			25.80	227.1	250.	12.76	34.29	25.91	216.3	0.962
260.	12.31	34.26			25.97	210.5	300.	10.14	34.21	26.33	176.7	1.061
286.	10.75	34.20			26.22	187.3	400.	8.11	34.34	26.76	136.6	1.220
311.	9.73	34.22			26.41	169.2	500.	6.89	34.40	26.99	115.7	1.347
416.	7.99	34.36			26.79	133.5	600.	6.16	34.45	27.12	103.7	1.458
519.	6.69	34.41			27.02	112.8	700.	5.61	34.48	27.21	95.4	1.558
621.	6.06	34.46			27.14	101.9	800.	5.09	34.50	27.29	88.6	1.651
828.	4.95	34.50			27.31	87.0	1000.	4.23	34.53	27.41	77.8	1.820
1030.	4.12	34.53			27.42	76.4	1200.	3.59	34.56	27.50	69.5	1.969
1233.	3.50	34.56			27.51	68.3	1500.	2.86	34.60	27.60	59.9	2.166
1536.	2.80	34.60			27.61	59.0						

CROMWELL 4, STATION 5, 14-30N LAT, 156-59W LONG, MAY 19, 1964, 1200 G.C.T.
DRY BULB 25.0 WET BULB 23.0 WIND SPEED 15, DIR. 06 BAR. 15 WEATHER 03 VIS. 7 CLOUD TYPE 8, COVER 0

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.25	34.50			22.91	496.1	0.	25.25	34.50	22.91	496.1	0.000
10.Δ	25.26	34.50			22.91	496.8	10.	25.26	34.50	22.91	496.8	0.050
30.Δ	25.26	34.50			22.91	497.6	20.	25.26	34.50	22.91	497.2	0.100
50.Δ	25.26	34.50			22.91	498.4	30.	25.26	34.50	22.91	497.6	0.150
75.	24.41	34.71			23.32	459.7	50.	25.26	34.50	22.91	498.4	0.251
99.	23.86	34.86			23.60	434.2	75.	24.41	34.71	23.32	459.7	0.371
125.	22.29	35.04			24.19	378.9	100.	23.82	34.87	23.62	432.4	0.484
148.	20.20	35.02			24.74	326.4	150.	19.95	35.00	24.79	321.8	0.674
173.	17.12	34.70			25.27	276.1	200.	14.59	34.42	25.63	242.1	0.816
198.	14.83	34.44			25.60	245.6	250.	10.62	34.23	26.26	182.1	0.923
222.	12.14	34.26			26.01	206.4	300.	8.98	34.23	26.54	156.4	1.008
248.	10.72	34.23			26.25	183.8	400.	7.97	34.44	26.86	126.7	1.151
272.	9.69	34.23			26.42	167.0	500.	7.10	34.48	27.02	112.9	1.272
296.	9.05	34.22			26.52	157.9	600.	6.21	34.50	27.15	100.7	1.380
395.	8.01	34.44			26.85	127.6	700.	5.63	34.51	27.23	93.8	1.478
492.	7.18	34.48			27.01	114.1	800.	5.20	34.51	27.29	89.0	1.570
590.	6.28	34.50			27.14	101.5	1000.	4.39	34.54	27.40	78.5	1.740
785.	5.27	34.51			27.28	89.8	1200.	3.70	34.58	27.50	69.2	1.889
980.	4.47	34.54			27.39	79.5						
1174.	3.78	34.58			27.50	69.8						
1468.	2.98	34.61			27.60	60.0						

CROMWELL 4, STATION 6, 13- 9N LAT, 157- 3W LONG, MAY 19, 1964, 2200 G.C.T.
DRY BULB 26.1 WET BULB 24.0 WIND SPEED 20, DIR. 06 BAR. 14 WEATHER 03 VIS. 7 CLOUD TYPE 6, COVER 8

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	26.56	34.71			22.66	519.9	0.	26.56	34.71	22.66	519.9	0.000
40.Δ	26.53	34.70			22.66	521.3	10.	26.58	34.71	22.65	521.1	0.052
50.Δ	26.48	34.70			22.68	520.2	20.	26.58	34.70	22.65	521.7	0.105
62.Δ	26.43	34.71			22.70	518.4	30.	26.56	34.70	22.65	521.8	0.158
75.Δ	26.36	34.70			22.72	517.6	50.	26.48	34.70	22.68	520.2	0.262
85.	24.36	34.46			23.15	476.6	75.	26.36	34.70	22.72	517.6	0.393
109.	21.39	34.78			24.24	373.1	100.	22.34	34.61	23.85	410.3	0.510
133.	18.68	34.70			24.89	311.4	150.	16.02	34.53	25.40	263.2	0.680
156.	15.07	34.46			25.56	248.0	200.	11.34	34.28	26.18	189.6	0.794
179.	12.26	34.24			25.97	209.0	250.	10.07	34.40	26.49	160.3	0.882
203.	11.28	34.30			26.20	187.4	300.	9.76	34.55	26.66	145.4	0.959
227.	10.53	34.39			26.40	168.3	400.	8.13	34.47	26.86	126.8	1.096
250.	10.07	34.40			26.49	160.3	500.	7.14	34.50	27.03	112.1	1.217
274.	10.08	34.52			26.58	152.1	600.	6.46	34.54	27.15	101.4	1.325
366.	8.58	34.48			26.80	132.7	700.	5.84	34.54	27.23	94.4	1.424
461.	7.45	34.48			26.97	117.5	800.	5.33	34.53	27.29	89.1	1.517
553.	6.78	34.53			27.10	105.7	1000.	4.52	34.55	27.39	79.8	1.687
739.	5.62	34.53			27.25	92.4	1200.	3.85	34.56	27.48	72.0	1.841
924.	4.81	34.54			27.35	83.3						
1110.	4.14	34.56			27.44	75.2						
1387.	3.35	34.58			27.54	66.2						

SALINITY ERROR TERM AT 100. METERS IS 0.07

ΔFROM BT DATA

Table 1.--Continued

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
CROMWELL 4, STATION 7, 11-30N LAT, 157- 2W LONG, MAY 20, 1964, 0700 G.C.T. DRY BULB 27.2 WET BULB 24.6 WIND SPEED 18, DIR. 06 BAR. 13 WEATHER 01 VIS. 7 CLOUD TYPE 8, COVER 4												
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.Δ	27.42	34.56			22.27	556.9	0.	27.42	34.56	22.27	556.9	0.000
30.Δ	27.35	34.58			22.31	554.5	10.	27.39	34.57	22.29	556.1	0.056
50.Δ	27.32	34.60			22.34	553.0	20.	27.37	34.57	22.30	555.3	0.112
75.	27.30	34.64			22.37	550.5	30.	27.35	34.58	22.31	554.5	0.168
86.	27.29	34.66			22.39	549.2	50.	27.32	34.60	22.34	553.0	0.279
97.	16.40	34.50			25.29	272.1	75.	27.30	34.64	22.37	550.5	0.418
102.	14.33	34.44			25.70	232.6	100.	14.98	34.46	25.58	244.6	0.519
107.	13.47	34.48			25.91	212.6	150.	11.62	34.71	26.46	162.0	0.621
118.	12.96	34.60			26.11	194.3	200.	10.80	34.72	26.61	148.0	0.699
144.	11.79	34.70			26.42	165.7	250.	10.30	34.72	26.70	140.6	0.772
171.	11.21	34.73			26.55	153.8	300.	9.91	34.70	26.75	136.6	0.842
198.	10.82	34.72			26.61	148.3	400.	8.93	34.66	26.89	125.3	0.974
224.	10.58	34.72			26.65	144.8	500.	8.27	34.60	26.94	121.2	1.098
250.	10.30	34.72			26.70	140.6	600.	7.43	34.56	27.03	113.4	1.217
277.	10.13	34.70			26.72	139.8	700.	6.63	34.54	27.13	104.7	1.327
303.	9.88	34.70			26.76	136.1	800.	5.92	34.54	27.22	96.5	1.429
408.	8.86	34.66			26.89	124.7	1000.	4.85	34.56	27.36	83.2	1.611
508.	8.22	34.60			26.95	120.9	1200.	4.09	34.58	27.46	73.9	1.770
607.	7.37	34.56			27.04	112.8	1500.	3.17	34.60	27.57	63.3	1.979
808.	5.87	34.54			27.23	95.9						
1007.	4.82	34.56			27.37	82.8						
1206.	4.07	34.58			27.47	73.7						
1504.	3.16	34.60			27.57	63.2						

CROMWELL 4, STATION 7A, 10- ON LAT, 154- 0W LONG, MAY 21, 1964, 0300 G.C.T. DRY BULB 27.3 WET BULB 24.8 WIND SPEED 14, DIR. 10 BAR. 10 WEATHER 03 VIS. 7 CLOUD TYPE 8, COVER 6												
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.Δ	27.14	34.82			22.56	529.6	0.	27.14	34.82	22.56	529.6	0.000
11.Δ	27.11	34.82			22.57	529.1	10.	27.11	34.82	22.57	529.1	0.053
30.Δ	27.06	34.82			22.58	528.4	20.	27.09	34.82	22.58	528.8	0.107
50.Δ	27.00	34.82			22.60	527.3	30.	27.06	34.82	22.58	528.4	0.160
77.	26.87	34.82			22.65	524.5	50.	27.00	34.82	22.60	527.3	0.266
102.	26.09	34.78			22.86	504.8	75.	26.89	34.82	22.64	525.0	0.399
113.	19.36	34.55			24.60	338.2	100.	26.54	34.80	22.73	516.9	0.530
123.	15.18	34.46			25.54	249.4	150.	12.34	34.60	26.23	183.3	0.706
133.	13.40	34.40			25.87	217.8	200.	11.41	34.76	26.54	155.6	0.792
153.	12.30	34.65			26.28	179.0	250.	10.79	34.75	26.64	146.8	0.868
178.	11.75	34.76			26.47	161.4	300.	10.33	34.72	26.70	141.8	0.941
204.	11.36	34.76			26.54	155.0	400.	9.49	34.68	26.81	133.0	1.079
229.	11.05	34.75			26.59	150.9	500.	8.47	34.62	26.93	123.0	1.209
255.	10.73	34.75			26.65	145.9	600.	7.53	34.58	27.03	113.5	1.328
280.	10.47	34.74			26.69	142.7	700.	6.58	34.55	27.15	103.2	1.438
306.	10.29	34.72			26.70	141.6	800.	5.72	34.54	27.25	93.7	1.537
406.	9.43	34.68			26.82	132.3	1000.	4.65	34.56	27.39	80.6	1.714
505.	8.42	34.62			26.93	122.5	1200.	3.84	34.57	27.48	71.3	1.867
606.	7.48	34.58			27.04	112.9						
805.	5.68	34.54			27.25	93.3						
1005.	4.63	34.56			27.39	80.3						
1156.	3.98	34.57			27.47	72.8						
1382.	3.36	34.58			27.54	66.3						

TEMPERATURE ERROR TERM AT 100. METERS IS 0.24

CROMWELL 4, STATION 8, 11-32N LAT, 153-59W LONG, MAY 21, 1964, 1200 G.C.T. DRY BULB 26.7 WET BULB 24.1 WIND SPEED 20, DIR. 08 BAR. 12 WEATHER 00 VIS. 7 CLOUD TYPE , COVER												
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.70	34.68			22.59	526.2	0.	26.70	34.68	22.59	526.2	0.000
10.Δ	26.70	34.68			22.59	526.6	10.	26.70	34.68	22.59	526.6	0.053
30.Δ	26.68	34.68			22.60	526.9	20.	26.75	34.69	22.58	528.2	0.106
50.Δ	25.70	34.58			22.83	505.5	30.	26.68	34.68	22.60	526.9	0.159
69.	24.18	34.49			23.22	468.7	50.	25.70	34.58	22.83	505.5	0.263
80.	23.54	34.57			23.47	445.4	75.	23.89	34.52	23.33	458.6	0.385
91.	21.83	34.80			24.13	382.6	100.	20.69	34.84	24.48	350.1	0.487
101.	20.57	34.84			24.51	347.2	150.	13.98	34.38	25.73	231.6	0.633
113.	19.16	34.81			24.85	314.4	200.	10.88	34.39	26.34	174.0	0.735
123.	18.23	34.75			25.04	296.7	250.	10.36	34.57	26.58	152.3	0.818
149.	14.08	34.38			25.71	233.2	300.	10.04	34.63	26.68	143.6	0.892
176.	12.13	34.37			26.09	197.0	400.	8.98	34.61	26.84	130.0	1.030
202.	10.81	34.39			26.35	172.5	500.	8.13	34.57	26.94	121.4	1.157
228.	10.62	34.53			26.50	159.5	600.	7.28	34.54	27.04	112.6	1.275
256.	10.29	34.58			26.59	150.8	700.	6.43	34.54	27.15	102.5	1.384
307.	10.01	34.64			26.69	142.8	800.	5.67	34.54	27.25	93.2	1.483
413.	8.82	34.60			26.85	128.5	1000.	4.66	34.54	27.37	82.2	1.660
514.	8.03	34.57			26.95	120.3	1200.	3.93	34.57	27.47	72.7	1.817
613.	7.17	34.54			27.05	111.4	1500.	3.09	34.60	27.58	62.4	2.023
812.	5.59	34.54			27.26	92.2						
1010.	4.62	34.54			27.38	81.7						
1208.	3.90	34.57			27.48	72.3						
1506.	3.08	34.60			27.58	62.2						

ΔFROM BT DATA

Table 1.--Continued

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					

CROMWELL 4, STATION 9, 13- 4N LAT, 154- 0W LONG, MAY 21, 1964, 2200 G.C.T.
DRY BULB 25.7 WET BULB 23.2 WIND SPEED 23, DIR. 08 BAR. 14 WEATHER 02 VIS. 7 CLOUD TYPE 8, COVER 2

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.98	34.45			22.95	491.9	0.	24.98	34.45	22.95	491.9	0.000
10.	24.94	34.46			22.97	490.4	10.	24.94	34.46	22.97	490.4	0.049
51.	24.34	34.51			23.19	471.1	20.	24.87	34.47	23.00	488.0	0.099
75.	23.55	34.55			23.45	446.9	30.	24.75	34.48	23.05	484.1	0.148
98.	21.11	34.94			24.44	353.8	50.	24.36	34.51	23.18	471.9	0.244
126.	19.19	34.94			24.95	306.2	75.	23.55	34.55	23.45	446.9	0.360
150.	16.30	34.59			25.38	264.9	100.	20.98	34.96	24.49	349.3	0.460
175.	13.36	34.30			25.80	225.5	150.	16.30	34.59	25.38	264.9	0.615
200.	11.49	34.26			26.13	194.0	200.	11.49	34.26	26.13	194.0	0.730
225.	10.70	34.34			26.34	174.8	250.	10.31	34.43	26.47	162.4	0.820
251.	10.30	34.43			26.48	161.9	300.	9.78	34.56	26.67	144.7	0.898
274.	10.00	34.52			26.60	150.8	400.	8.56	34.56	26.86	127.2	1.035
300.	9.78	34.56			26.67	144.7	500.	7.79	34.57	26.99	116.5	1.158
399.	8.57	34.56			26.86	127.3	600.	6.68	34.52	27.11	105.7	1.270
498.	7.81	34.57			26.99	116.8	700.	5.98	34.51	27.19	98.4	1.373
596.	6.71	34.52			27.10	106.0	800.	5.48	34.52	27.26	91.9	1.469
793.	5.52	34.52			27.25	92.5	1000.	4.57	34.59	27.42	77.3	1.641
988.	4.62	34.59			27.42	77.8	1200.	3.84	34.60	27.51	69.2	1.789
1183.	3.92	34.58			27.48	71.6						
1474.	3.06	34.60			27.58	61.8						

CROMWELL 4, STATION 10, 14-30N LAT, 154- 2W LONG, MAY 22, 1964, 0800 G.C.T.
DRY BULB 25.3 WET BULB 22.6 WIND SPEED 24, DIR. 08 BAR. 16 WEATHER 01 VIS. 8 CLOUD TYPE 8, COVER 1

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.56	34.52			23.13	474.7	0.	24.56	34.52	23.13	474.7	0.000
11.	24.60	34.50			23.11	477.7	10.	24.60	34.50	23.11	477.6	0.048
30.Δ	24.58	34.51			23.12	477.2	20.	24.60	34.50	23.11	478.0	0.096
50.Δ	24.50	34.52			23.15	474.9	30.	24.58	34.51	23.12	477.2	0.144
71.	24.22	34.54			23.25	466.3	50.	24.50	34.52	23.15	474.9	0.240
94.	22.81	34.96			23.98	397.6	75.	24.04	34.61	23.36	456.4	0.357
120.	20.46	35.06			24.70	329.1	100.	22.28	35.01	24.17	379.7	0.463
144.	18.66	34.90			25.05	296.8	150.	18.07	34.84	25.15	287.4	0.631
168.	16.23	34.64			25.44	260.3	200.	13.22	34.37	25.88	218.5	0.758
192.	14.08	34.42			25.74	231.5	250.	10.24	34.42	26.48	161.5	0.854
216.	11.66	34.31			26.14	193.8	300.	9.40	34.49	26.68	143.5	0.931
240.	10.54	34.40			26.41	168.0	400.	8.25	34.52	26.88	125.2	1.067
263.	9.94	34.44			26.54	155.4	500.	7.40	34.52	27.00	114.6	1.188
287.	9.58	34.48			26.64	147.1	600.	6.51	34.51	27.12	104.3	1.298
382.	8.41	34.52			26.86	127.5	700.	5.79	34.50	27.21	96.4	1.400
476.	7.63	34.52			26.97	117.4	800.	5.21	34.51	27.28	89.4	1.493
570.	6.75	34.51			27.09	107.0	1000.	4.35	34.54	27.41	78.0	1.663
756.	5.45	34.50			27.25	92.6	1200.	3.68	34.57	27.50	69.7	1.812
945.	4.56	34.54			27.38	80.3						
1131.	3.91	34.55			27.46	73.2						
1411.	3.19	34.60			27.57	62.9						

CROMWELL 4, STATION 11, 16- 0N LAT, 153-59W LONG, MAY 22, 1964, 1700 G.C.T.
DRY BULB 24.8 WET BULB 21.7 WIND SPEED 24, DIR. 08 BAR. 14 WEATHER 02 VIS. 8 CLOUD TYPE 8, COVER 2

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.89	34.50***			23.02	485.6	0.	24.89	34.50	23.02	485.6	0.000
11.	24.91	34.50			23.01	486.7	10.	24.91	34.50	23.01	486.6	0.049
30.Δ	24.91	34.50			23.01	487.4	20.	24.91	34.50	23.01	487.1	0.098
50.Δ	24.90	34.50			23.02	487.9	30.	24.91	34.50	23.01	487.4	0.147
74.	23.57	34.59***			23.48	444.5	50.	24.90	34.50	23.02	487.9	0.245
98.	22.87	34.86			23.89	406.6	75.	23.54	34.60	23.50	442.9	0.363
125.	21.52	34.96			24.34	364.1	100.	22.80	34.87	23.92	403.7	0.469
149.	19.43	34.87			24.83	318.0	150.	19.33	34.86	24.85	316.1	0.651
173.	16.98	34.65			25.27	276.6	200.	14.59	34.43	25.64	241.7	0.791
198.	14.77	34.44			25.61	244.4	250.	11.30	34.22	26.13	195.0	0.901
224.	12.65	34.29			25.93	213.8	300.	10.14	34.34	26.44	166.7	0.992
248.	11.40	34.22			26.12	196.4	400.	7.81	34.31	26.78	134.2	1.144
272.	10.44	34.22			26.29	180.2	500.	6.76	34.36	26.97	116.9	1.271
298.	10.18	34.34			26.43	167.5	600.	6.14	34.42	27.10	105.5	1.383
396.	7.87	34.31			26.77	135.1	700.	5.60	34.46	27.20	96.9	1.486
494.	6.81	34.36			26.96	117.8	800.	5.12	34.48	27.27	90.2	1.580
592.	6.19	34.42			27.09	106.2	1000.	4.31	34.53	27.40	78.8	1.751
788.	5.18	34.48			27.26	90.9	1200.	3.64	34.57	27.50	69.0	1.901
983.	4.37	34.52			27.39	79.8						
1179.	3.73	34.58			27.50	69.2						
1473.	2.91	34.60			27.60	60.0						

ΔFROM BT DATA
***SAMPLE BOTTLE CRACKED

Table 1.--Continued

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
CROMWELL 4, STATION 12, 17-32N LAT, 154- OW LONG, MAY 23, 1964, 0200 G.C.T.												
DRY BULB 24.7	WET BULB 21.7		WIND SPEED 17, DIR. 07		BAR. 15		WEATHER 03		VIS. 8		CLOUD TYPE 5, COVER 8	
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.18	34.56			23.28	461.0	0.	24.18	34.56	23.28	461.0	0.000
11.	24.18	34.57			23.28	460.7	10.	24.18	34.57	23.28	460.7	0.046
30.Δ	24.16	34.56			23.28	461.6	20.	24.17	34.57	23.28	461.1	0.093
50.Δ	24.12	34.56			23.29	461.2	30.	24.16	34.56	23.28	461.6	0.139
79.	24.04	34.56			23.32	460.1	50.	24.12	34.56	23.29	461.2	0.232
104.	23.50	34.74			23.61	432.9	75.	24.07	34.55	23.30	461.2	0.348
132.	21.75	35.02			24.32	366.1	100.	23.63	34.70	23.55	439.1	0.462
158.	20.26	34.94			24.67	334.1	150.	20.72	34.98	24.58	342.5	0.659
185.	18.57	34.86			25.04	298.9	200.	17.28	34.71	25.24	280.1	0.816
211.	16.26	34.58			25.38	266.7	250.	13.11	34.30	25.85	222.3	0.942
236.	14.05	34.38			25.72	235.0	300.	10.57	34.17	26.22	186.9	1.046
263.	12.38	34.25			25.95	212.6	400.	7.93	34.24	26.71	141.5	1.211
289.	11.17	34.18			26.13	196.2	500.	7.20	34.39	26.93	120.9	1.344
314.	9.82	34.16			26.35	175.1	600.	6.17	34.43	27.10	105.5	1.458
420.	7.83	34.27			26.75	137.9	700.	5.38	34.44	27.21	95.7	1.560
522.	7.06	34.42			26.97	117.3	800.	4.95	34.47	27.28	89.0	1.653
627.	5.86	34.42			27.13	102.3	1000.	4.31	34.53	27.40	78.4	1.823
833.	4.86	34.48			27.30	87.4	1200.	3.73	34.56	27.48	71.1	1.974
1038.	4.20	34.54			27.42	76.7	1500.	2.97	34.60	27.59	61.1	2.175
1242.	3.62	34.56			27.50	69.9						
1547.	2.86	34.60			27.60	59.8						

TEMPERATURE ERROR TERM AT 400. METERS IS 0.12

CROMWELL 4, STATION 13, 19-10N LAT, 154- OW LONG, MAY 23, 1964, 1300 G.C.T.												
DRY BULB 22.9	WET BULB 21.1		WIND SPEED 20, DIR. 08		BAR. 16		WEATHER 20		VIS. 7		CLOUD TYPE 6, COVER 8	
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.85	34.61			23.41	448.1	0.	23.85	34.61	23.41	448.1	0.000
11.	23.86	34.62			23.42	448.1	10.	23.86	34.62	23.42	448.1	0.045
55.	23.86	34.62			23.42	449.8	20.	23.91	34.63	23.41	449.4	0.090
79.	23.37	34.58			23.53	439.9	30.	23.94	34.63	23.40	450.2	0.136
106.	22.62	34.69			23.83	412.3	50.	23.89	34.62	23.41	450.2	0.226
133.	20.53	34.96			24.61	338.6	75.	23.47	34.58	23.50	442.3	0.339
158.	18.06	34.70			25.05	297.5	100.	22.85	34.65	23.73	421.3	0.448
184.	15.70	34.43			25.40	264.5	150.	18.87	34.81	24.93	308.6	0.631
210.	13.00	34.23			25.82	224.5	200.	13.97	34.29	25.67	238.8	0.769
237.	11.78	34.21			26.04	203.8	250.	11.26	34.22	26.15	193.6	0.878
264.	10.73	34.24			26.25	183.5	300.	9.46	34.20	26.44	166.1	0.969
289.	9.87	34.22			26.39	171.0	400.	7.22	34.16	26.75	136.8	1.122
315.	8.92	34.17			26.50	159.9	500.	5.96	34.22	26.96	116.8	1.250
422.	6.98	34.18			26.80	132.4	600.	5.35	34.34	27.14	101.1	1.360
524.	5.73	34.24			27.01	112.6	700.	5.03	34.43	27.24	91.6	1.457
627.	5.27	34.38			27.17	97.6	800.	4.74	34.47	27.31	86.0	1.547
835.	4.65	34.48			27.32	84.7	1000.	4.13	34.51	27.41	77.4	1.712
1040.	4.00	34.52			27.43	75.8	1200.	3.51	34.56	27.51	68.3	1.860
1244.	3.39	34.57			27.53	66.4	1500.	2.83	34.60	27.60	59.5	2.054
1549.	2.74	34.60			27.61	58.4						

CROMWELL 4, STATION 14, 20-49N LAT, 154- OW LONG, MAY 23, 1964, 2300 G.C.T.												
DRY BULB 23.3	WET BULB 20.2		WIND SPEED 28, DIR. 08		BAR. 19		WEATHER 03		VIS. 7		CLOUD TYPE 6, COVER 8	
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
3.	23.46	34.63			23.54	435.9	0.	23.46	34.63	23.54	435.8	0.000
8.	23.46	34.63			23.54	436.1	10.	23.46	34.63	23.54	436.1	0.044
30.Δ	23.46	34.63			23.54	436.9	20.	23.46	34.63	23.54	436.5	0.088
50.Δ	23.46	34.63			23.54	437.7	30.	23.46	34.63	23.54	436.9	0.132
98.	23.46	34.73			23.62	432.3	50.	23.46	34.63	23.54	437.7	0.220
122.	22.87	34.96			23.96	400.3	75.	23.56	34.64	23.52	440.4	0.331
146.	21.78	35.03			24.32	366.7	100.	23.43	34.75	23.64	430.0	0.440
171.	20.40	35.02			24.69	332.3	150.	21.59	35.04	24.38	361.0	0.639
187.	19.14	34.84			24.88	314.3	200.	18.24	34.73	25.03	300.9	0.806
219.	16.99	34.60			25.23	281.9	250.	14.83	34.40	25.57	249.7	0.945
245.	15.22	34.44			25.51	255.2	300.	11.42	34.13	26.04	204.4	1.060
271.	13.20	34.26			25.80	227.8	400.	8.13	34.10	26.57	154.3	1.241
297.	11.57	34.14			26.02	206.5	500.	6.72	34.20	26.85	128.3	1.383
395.	8.24	34.10			26.55	156.1	600.	6.24	34.25	26.95	119.3	1.508
496.	6.74	34.20			26.85	128.6	700.	5.88	34.33	27.06	110.2	1.624
694.	5.94	34.32			27.04	111.6	800.	4.88	34.47	27.29	87.7	1.724
795.	4.91	34.47			27.29	88.3	1000.	4.25	34.53	27.41	77.6	1.892
995.	4.26	34.53			27.41	77.8	1200.	3.69	34.56	27.49	70.5	2.042
1192.	3.74	34.55			27.48	71.7						
1489.	2.96	34.58			27.58	62.1						

TEMPERATURE ERROR TERM AT 600. METERS IS 0.18

ΔFROM BT DATA

Table 1.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 4, STATION 15, 21-59N LAT, 154- 2W LONG, MAY 24, 1964, 0600 G.C.T.
DRY BULB 23.2 WET BULB 20.2 WIND SPEED 26, DIR. 10 BAR. 19 WEATHER 01 VIS. 7 CLOUD TYPE 8, COVER 1

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.24	34.78			23.72	418.8	0.	23.24	34.78	23.72	418.8	0.000
10.	23.27	34.78			23.71	420.0	10.	23.27	34.78	23.71	420.0	0.042
75.	23.00	34.96			23.92	402.1	20.	23.27	34.80	23.72	419.1	0.085
101.	22.76	35.03			24.05	391.5	30.	23.25	34.82	23.74	417.6	0.127
124.	22.39	35.09			24.20	377.9	50.	23.18	34.87	23.81	412.4	0.210
149.	21.27	35.02			24.47	352.7	75.	23.00	34.96	23.92	402.1	0.313
175.	20.00	35.00			24.78	323.7	100.	22.77	35.03	24.04	391.9	0.413
190.	19.61	35.00			24.88	314.5	150.	21.17	35.02	24.48	351.5	0.600
222.	18.04	34.84			25.16	289.0	200.	19.18	34.96	24.96	307.0	0.766
248.	16.65	34.72			25.40	266.4	250.	16.56	34.71	25.41	265.1	0.910
275.	15.50	34.58			25.56	251.9	300.	14.36	34.45	25.71	238.0	1.037
300.	14.36	34.45			25.71	238.0	400.	9.83	34.12	26.31	180.0	1.248
400.	9.83	34.12			26.31	180.0	500.	7.38	34.03	26.62	150.3	1.415
499.	7.40	34.03			26.62	150.6	600.	5.78	34.08	26.88	125.8	1.554
598.	5.80	34.08			26.87	126.3	700.	4.92	34.22	27.08	106.3	1.672
794.	4.50	34.35			27.24	92.1	800.	4.48	34.36	27.24	91.5	1.772
988.	3.91	34.47			27.40	77.9	1000.	3.88	34.48	27.40	77.2	1.942
1182.	3.41	34.53			27.49	69.1	1200.	3.37	34.54	27.51	68.0	2.089
1474.	2.82	34.56			27.57	61.8						

CROMWELL 4, STATION 16, 23-30N LAT, 154- 0W LONG, MAY 24, 1964, 1600 G.C.T.
DRY BULB 21.3 WET BULB 18.8 WIND SPEED 25, DIR. 08 BAR. 20 WEATHER 02 VIS. 7 CLOUD TYPE 5, COVER 6

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.19	34.92			23.84	407.3	0.	23.19	34.92	23.84	407.3	0.000
9.	23.21	34.92			23.83	408.2	10.	23.21	34.92	23.83	408.3	0.041
30.Δ	23.20	34.92			23.84	408.8	20.	23.21	34.92	23.83	408.6	0.082
50.Δ	23.20	34.92			23.84	409.5	30.	23.20	34.92	23.84	408.8	0.123
72.	23.15	34.92			23.85	409.0	50.	23.20	34.92	23.84	409.5	0.206
95.	22.73	35.00			24.03	392.6	75.	23.10	34.93	23.87	407.3	0.309
119.	22.38	35.09			24.20	377.5	100.	22.66	35.02	24.06	389.9	0.409
143.	21.76	35.26			24.50	349.5	150.	21.53	35.27	24.57	343.1	0.594
166.	21.08	35.26			24.69	332.4	200.	19.61	35.07	24.94	309.3	0.758
180.	20.88	35.26			24.74	327.7	250.	16.19	34.66	25.46	260.7	0.902
212.	18.62	34.93			25.08	296.0	300.	13.62	34.38	25.80	228.2	1.025
237.	16.94	34.74			25.35	271.1	400.	9.97	34.12	26.29	182.0	1.232
261.	15.59	34.59			25.54	252.7	500.	7.37	34.03	26.63	150.1	1.400
286.	14.27	34.44			25.72	236.5	600.	5.54	34.07	26.90	123.8	1.538
381.	10.56	34.16			26.22	189.0	700.	4.67	34.19	27.09	105.3	1.654
476.	7.95	34.04			26.55	157.6	800.	4.33	34.32	27.23	92.3	1.754
572.	5.89	34.04			26.83	130.1	1000.	3.91	34.47	27.40	77.7	1.926
762.	4.45	34.28			27.19	96.4	1200.	3.43	34.55	27.51	68.1	2.073
954.	4.02	34.45			27.37	80.4						
1145.	3.54	34.52			27.47	71.1						
1433.	2.88	34.56			27.57	62.3						

TEMPERATURE ERROR TERM AT 200. METERS IS 0.10

CROMWELL 4, STATION 17, 23-30N LAT, 151- 0W LONG, MAY 25, 1964, 1100 G.C.T.
DRY BULB 21.3 WET BULB 18.8 WIND SPEED 16, DIR. 07 BAR. 22 WEATHER 03 VIS. 6 CLOUD TYPE 8, COVER 6

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	22.72	35.12			24.13	380.1	0.	22.72	35.12	24.13	380.0	0.000
9.	22.75	35.12			24.12	381.2	10.	22.76	35.12	24.11	381.7	0.038
30.Δ	22.75	35.12			24.12	382.0	20.	22.82	35.11	24.09	384.5	0.077
47.	21.96	35.26			24.45	351.2	30.	22.75	35.12	24.12	382.0	0.116
72.	21.51	35.34			24.63	334.4	50.	21.88	35.28	24.48	348.0	0.189
96.	21.24	35.32			24.69	329.7	75.	21.47	35.34	24.64	333.5	0.275
120.	20.96	35.29			24.74	325.4	100.	21.23	35.32	24.69	329.5	0.358
143.	19.66	35.10			24.95	306.9	150.	19.38	35.06	24.99	302.7	0.518
168.	18.72	34.98			25.10	293.3	200.	17.06	34.75	25.33	272.1	0.663
183.	18.08	34.88			25.18	285.7	250.	14.21	34.42	25.71	235.9	0.791
214.	16.15	34.64			25.46	260.0	300.	12.04	34.25	26.02	207.0	0.902
238.	14.79	34.49			25.64	242.3	400.	8.43	34.03	26.47	164.4	1.090
266.	13.50	34.34			25.80	227.7	500.	6.69	34.05	26.73	139.3	1.243
288.	12.58	34.29			25.95	214.1	600.	5.35	34.13	26.96	117.0	1.372
384.	8.81	34.04			26.42	169.1	700.	4.72	34.25	27.13	101.4	1.483
482.	7.00	34.04			26.68	143.9	800.	4.42	34.36	27.26	90.2	1.580
577.	5.55	34.10			26.92	121.3	1000.	3.87	34.49	27.41	76.4	1.748
772.	4.52	34.34			27.23	92.9	1200.	3.39	34.56	27.52	67.0	1.893
966.	3.96	34.47			27.39	78.3						
1158.	3.48	34.54			27.49	69.0						
1451.	2.91	34.58			27.58	61.3						

ΔFROM BT DATA

Table 1.--Continued

CROMWELL 4, STATION 18, 22- 1N LAT, 150-58W LONG, MAY 25, 1964, 2000 G.C.T.
DRY BULB 23.4 WET BULB 20.1 WIND SPEED 16, DIR. 10 BAR. 21 WEATHER 02 VIS. 8 CLOUD TYPE , COVER

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA				
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	23.07	34.92			23.87	404.1	0.	23.07	34.92	23.87	404.0	0.000
11.	23.05	34.92			23.88	403.9	10.	23.05	34.92	23.88	403.9	0.041
76.	23.00	34.94			23.91	403.6	20.	23.05	34.91	23.87	404.8	0.081
102.	22.86	35.02			24.01	395.0	30.	23.05	34.91	23.87	405.3	0.122
128.	22.56	35.18			24.22	376.2	50.	23.04	34.91	23.88	405.5	0.204
151.	21.86	35.17			24.41	358.9	75.	23.00	34.94	23.91	403.7	0.306
176.	20.35	35.15			24.80	321.8	100.	22.87	35.01	24.00	395.9	0.407
202.	19.23	35.03			25.00	303.3	150.	21.90	35.17	24.40	359.8	0.597
227.	17.91	34.84			25.19	286.1	200.	19.31	35.04	24.99	304.4	0.764
252.	16.13	34.62			25.44	262.1	250.	16.28	34.64	25.42	264.2	0.908
278.	14.07	34.38			25.71	236.6	300.	12.43	34.22	25.92	216.3	1.029
304.	12.15	34.20			25.96	212.9	400.	8.96	34.08	26.42	169.0	1.223
402.	8.93	34.08			26.43	168.4	500.	7.16	34.16	26.75	137.8	1.378
503.	7.12	34.16			26.76	137.0	600.	5.63	34.22	27.00	113.8	1.505
601.	5.62	34.22			27.01	113.6	700.	5.00	34.33	27.16	99.1	1.613
799.	4.79	34.43			27.27	89.8	800.	4.79	34.43	27.27	89.7	1.708
997.	4.22	34.50			27.39	79.5	1000.	4.21	34.50	27.39	79.4	1.879
1196.	3.62	34.54			27.48	71.0	1200.	3.64	34.54	27.48	70.9	2.032
1494.	2.93	34.58			27.58	61.8						

TEMPERATURE ERROR TERM AT 700. METERS IS 0.11

CROMWELL 4, STATION 19, 20-28N LAT, 151- 4W LONG, MAY 26, 1964, 0500 G.C.T.
DRY BULB 23.1 WET BULB 20.1 WIND SPEED 16, DIR. 08 BAR. 19 WEATHER 03 VIS. 7 CLOUD TYPE 5, COVER 8

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	22.88	35.04			24.02	390.2	0.	22.88	35.04	24.02	390.2	0.000
10.	22.88	35.05			24.03	389.8	10.	22.88	35.05	24.03	389.8	0.039
47.	22.44	35.09			24.18	376.4	20.	22.77	35.06	24.07	386.4	0.078
73.	22.40	35.10			24.20	375.6	30.	22.66	35.07	24.11	382.8	0.117
97.	22.22	35.09			24.24	372.3	50.	22.43	35.09	24.19	376.2	0.194
118.	22.05	35.16			24.35	363.5	75.	22.39	35.10	24.20	375.5	0.288
143.	21.38	35.20			24.56	343.7	100.	22.21	35.10	24.25	371.5	0.382
166.	20.18	35.13			24.83	318.6	150.	21.02	35.18	24.65	335.7	0.561
180.	19.66	35.08			24.93	309.6	200.	18.91	34.99	25.06	298.0	0.720
211.	18.37	34.92			25.14	290.7	250.	15.22	34.48	25.54	252.4	0.859
236.	16.48	34.64			25.38	268.0	300.	11.57	34.15	26.03	205.7	0.974
261.	14.23	34.37			25.67	240.1	400.	8.79	34.16	26.51	160.6	1.159
285.	12.36	34.20			25.92	216.4	500.	7.18	34.22	26.80	133.7	1.308
380.	9.16	34.14			26.44	167.2	600.	5.61	34.22	27.01	113.1	1.432
475.	7.68	34.22			26.73	140.3	700.	5.03	34.33	27.16	99.1	1.540
571.	5.87	34.20			26.96	118.0	800.	4.78	34.44	27.28	89.1	1.635
762.	4.93	34.41			27.24	92.6	1000.	4.06	34.52	27.42	76.3	1.802
952.	4.24	34.51			27.39	78.6	1200.	3.45	34.56	27.51	67.7	1.948
1118.	3.66	34.53			27.47	71.6						
1354.	3.08	34.57			27.56	63.4						

TEMPERATURE ERROR TERM AT 300. METERS IS 0.11
TEMPERATURE ERROR TERM AT 700. METERS IS 0.12

CROMWELL 4, STATION 20, 18-56N LAT, 151- 4W LONG, MAY 26, 1964, 1500 G.C.T.
DRY BULB 23.3 WET BULB 20.3 WIND SPEED 19, DIR. 07 BAR. 17 WEATHER 01 VIS. 7 CLOUD TYPE 4, COVER 7

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.73	34.57			23.42	447.6	0.	23.73	34.57	23.42	447.6	0.000
10.	23.74	34.57			23.41	448.3	10.	23.74	34.57	23.41	448.3	0.045
30.Δ	23.74	34.57			23.41	449.0	20.	23.78	34.55	23.39	451.1	0.090
49.	23.22	34.86			23.78	414.4	30.	23.74	34.57	23.41	449.0	0.136
72.	23.07	34.92			23.87	406.8	50.	23.21	34.87	23.79	413.8	0.223
96.	22.38	34.94			24.09	387.4	75.	23.01	34.92	23.89	404.9	0.326
121.	21.31	34.97			24.41	357.7	100.	22.21	34.94	24.13	383.1	0.425
144.	20.57	35.15			24.74	326.3	150.	20.29	35.14	24.81	320.1	0.602
169.	19.12	34.99			25.00	302.4	200.	16.14	34.53	25.37	267.4	0.750
192.	17.12	34.64			25.23	281.1	250.	11.98	34.20	25.99	208.6	0.870
217.	14.14	34.34			25.67	239.2	300.	9.78	34.14	26.34	175.6	0.967
242.	12.46	34.22			25.91	215.8	400.	8.50	34.30	26.67	145.3	1.129
265.	11.16	34.17			26.12	196.2	500.	7.68	34.50	26.95	120.1	1.263
289.	10.08	34.14			26.29	180.4	600.	6.55	34.44	27.06	109.6	1.379
386.	8.61	34.26			26.62	149.8	700.	5.94	34.47	27.16	100.7	1.485
481.	7.91	34.50			26.92	123.1	800.	5.48	34.50	27.24	93.5	1.583
577.	6.73	34.44			27.04	112.0	1000.	4.54	34.51	27.36	83.1	1.762
768.	5.66	34.50			27.22	95.5	1200.	3.86	34.54	27.45	74.2	1.921
959.	4.69	34.50			27.34	85.1						
1151.	4.09	34.54			27.43	76.4						
1439.	3.24	34.58			27.55	65.2						

ΔFROM BT DATA

Table 1.--Continued

CROMWELL 4, STATION 21, 17-30N LAT, 151- 0W LONG, MAY 27, 1964, 0000 G.C.T.
DRY BULB 24.0 WET BULB 21.7 WIND SPEED 18, DIR. 06 BAR. 17 WEATHER 02 VIS. 7 CLOUD TYPE 8, COVER 3

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.19	34.56			23.27	461.3	0.	24.19	34.56	23.27	461.3	0.000
10.	24.33	34.55			23.22	466.4	10.	24.33	34.55	23.22	466.4	0.047
30.Δ	24.28	34.56			23.25	465.0	20.	24.35	34.55	23.22	467.2	0.094
50.Δ	23.92	34.56			23.35	455.6	30.	24.28	34.56	23.25	465.0	0.141
75.	23.76	34.58			23.42	450.6	50.	23.92	34.56	23.35	455.6	0.233
100.	22.92	34.74			23.78	416.7	75.	23.76	34.58	23.42	450.6	0.348
124.	21.50	34.85			24.26	371.5	100.	22.92	34.74	23.78	416.7	0.457
150.	20.18	34.98			24.72	328.9	150.	20.18	34.98	24.72	328.9	0.645
174.	18.21	34.77			25.06	296.5	200.	15.25	34.46	25.52	253.4	0.791
190.	16.39	34.58			25.35	268.9	250.	11.71	34.20	26.04	203.6	0.907
222.	13.14	34.25			25.80	226.1	300.	10.25	34.30	26.38	171.7	1.001
249.	11.75	34.20			26.03	204.2	400.	8.57	34.40	26.74	139.1	1.158
276.	10.85	34.21			26.21	188.1	500.	7.37	34.44	26.95	119.9	1.289
300.	10.25	34.30			26.38	171.7	600.	6.51	34.44	27.07	109.2	1.404
400.	8.57	34.40			26.74	139.1	700.	5.82	34.46	27.17	100.1	1.510
501.	7.36	34.44			26.95	119.8	800.	5.27	34.48	27.25	92.3	1.608
601.	6.50	34.44			27.07	109.1	1000.	4.45	34.54	27.39	79.5	1.781
802.	5.26	34.48			27.25	92.1	1200.	3.85	34.57	27.48	71.7	1.934
1002.	4.44	34.54			27.40	79.4	1500.	3.06	34.59	27.57	62.7	2.139
1201.	3.85	34.57			27.48	71.6						
1501.	3.06	34.59			27.57	62.7						

CROMWELL 4, STATION 22, 15-59N LAT, 150-59W LONG, MAY 27, 1964, 0900 G.C.T.
DRY BULB 24.5 WET BULB 21.9 WIND SPEED 16, DIR. 08 BAR. 17 WEATHER 00 VIS. 7 CLOUD TYPE , COVER

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.37	34.55			23.21	467.1	0.	24.37	34.55	23.21	467.1	0.000
10.	24.38	34.54			23.20	468.5	10.	24.38	34.54	23.20	468.5	0.047
48.	24.19	34.60			23.30	460.3	20.	24.39	34.55	23.20	468.6	0.094
72.	23.57	34.62			23.50	442.3	30.	24.36	34.56	23.23	467.1	0.141
99.	23.26	34.68			23.64	430.4	50.	24.14	34.60	23.32	458.8	0.235
122.	22.12	34.90			24.13	384.3	75.	23.55	34.62	23.51	441.9	0.348
147.	19.92	34.98			24.79	322.2	100.	23.23	34.69	23.65	428.8	0.458
172.	18.81	34.88			25.00	302.9	150.	19.77	34.97	24.82	318.8	0.646
187.	17.98	34.78			25.13	290.7	200.	16.00	34.55	25.42	262.7	0.793
219.	12.98	34.27			25.85	221.4	250.	11.26	34.41	26.29	179.9	0.904
243.	11.52	34.38			26.22	186.7	300.	10.33	34.59	26.59	151.9	0.988
270.	10.78	34.50			26.45	165.4	400.	9.00	34.54	26.78	135.6	1.133
292.	10.45	34.58			26.57	154.4	500.	7.87	34.54	26.95	120.2	1.262
393.	9.09*	34.54			26.76	136.9	600.	6.92	34.50	27.06	110.6	1.379
490.	7.98	34.54			26.94	121.4	700.	6.18	34.50	27.15	101.8	1.486
589.	7.01	34.50			27.04	111.7	800.	5.59	34.51	27.24	94.2	1.585
784.	5.68	34.51			27.23	95.2	1000.	4.63	34.52	27.36	83.1	1.765
980.	4.72	34.52			27.35	84.2	1200.	3.87	34.54	27.46	73.8	1.924
1174.	3.93	34.54			27.45	74.6						
1468.	3.22	34.59			27.56	64.4						

TEMPERATURE ERROR TERM AT 200. METERS IS 0.32

CROMWELL 4, STATION 23, 14-30N LAT, 151- 1W LONG, MAY 27, 1964, 1800 G.C.T.
DRY BULB 25.4 WET BULB 22.3 WIND SPEED 22, DIR. 05 BAR. 19 WEATHER 02 VIS. 7 CLOUD TYPE 8, COVER 5

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.74	34.70			22.91	496.1	0.	25.74	34.70	22.91	496.1	0.000
10.	25.73	34.70			22.91	496.2	10.	25.73	34.70	22.91	496.2	0.050
30.Δ	25.73	34.70			22.91	497.0	20.	25.73	34.70	22.91	496.5	0.100
50.Δ	25.73	34.70			22.91	497.8	30.	25.73	34.70	22.91	497.0	0.150
75.Δ	25.50	34.73			23.01	489.8	50.	25.73	34.70	22.91	497.8	0.250
100.	22.28	35.04			24.19	377.7	75.	25.50	34.73	23.01	489.8	0.375
125.	20.39	35.00			24.68	331.9	100.	22.28	35.04	24.19	377.7	0.484
149.	18.86	34.96			25.05	297.5	150.	18.80	34.95	25.05	296.6	0.654
176.	16.32	34.59			25.38	266.2	200.	12.97	34.27	25.85	220.8	0.784
190.	14.05	34.32			25.67	238.1	250.	10.86	34.48	26.41	168.0	0.882
222.	11.57	34.34			26.18	190.1	300.	10.20	34.56	26.59	151.9	0.963
246.	10.92	34.46			26.39	170.3	400.	8.39	34.50	26.84	129.1	1.105
274.	10.60	34.56			26.52	158.0	500.	7.25	34.49	27.00	114.5	1.228
297.	10.26	34.56			26.58	152.7	600.	6.42	34.50	27.13	103.5	1.338
396.	8.45	34.50			26.83	129.8	700.	5.73	34.51	27.22	95.2	1.438
494.	7.31	34.49			26.99	115.2	800.	5.18	34.51	27.29	88.7	1.531
593.	6.47	34.50			27.12	104.1	1000.	4.35	34.53	27.40	78.8	1.701
789.	5.23	34.51*			27.28	89.4	1200.	3.68	34.56	27.49	70.3	1.852
986.	4.40	34.53*			27.39	79.5						
1183.	3.74	34.56*			27.48	70.9						
1480.	3.00	34.60*			27.59	61.1						

ΔFROM BT DATA
*INTERPOLATED DATA

Table 1.--Continued

CROMWELL 4, STATION 24, 12-58N LAT, 150-59W LONG, MAY 28, 1964, 0300 G.C.T.
DRY BULB 25.4 WET BULB 22.9 WIND SPEED 18, DIR. 06 BAR. 13 WEATHER 02 VIS. 7 CLOUD TYPE 6, COVER 8

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.44	34.92			22.86	501.1	0.	26.44	34.92	22.86	501.1	0.000
10.	26.46	34.93			22.86	501.4	10.	26.46	34.93	22.86	501.4	0.050
30.Δ	26.46	34.93			22.86	502.2	20.	26.46	34.93	22.86	501.8	0.101
50.Δ	26.45	34.92			22.85	503.5	30.	26.46	34.93	22.86	502.2	0.152
74.	26.02	34.90			22.97	493.0	50.	26.45	34.92	22.85	503.5	0.253
98.	23.59	34.69			23.55	438.8	75.	25.95	34.89	22.99	491.9	0.378
122.	19.55	34.90			24.82	317.9	100.	23.26	34.71	23.66	428.3	0.494
147.	16.65	34.58			25.29	273.4	150.	16.19	34.53	25.36	267.0	0.669
172.	13.12	34.28			25.83	222.2	200.	11.50	34.45	26.27	180.3	0.782
186.	12.04	34.36			26.10	196.3	250.	10.43	34.55	26.55	155.3	0.867
219.	11.12	34.54			26.42	167.3	300.	9.80	34.58	26.68	143.3	0.942
245.	10.54	34.55			26.53	157.1	400.	8.83	34.60	26.85	128.6	1.079
270.	10.04	34.55			26.61	149.2	500.	7.82	34.56	26.97	117.8	1.203
295.	9.84	34.58			26.67	144.1	600.	6.82	34.52	27.08	107.9	1.317
393.	8.90	34.60			26.84	129.4	700.	6.06	34.50	27.17	100.0	1.422
493.	7.89	34.56			26.97	118.6	800.	5.45	34.50	27.25	93.0	1.520
591.	6.90	34.52			27.08	108.7	1000.	4.52	34.54	27.39	80.2	1.695
788.	5.52	34.50			27.24	93.9	1200.	3.79	34.57	27.49	71.0	1.849
985.	4.58	34.54			27.38	81.0						
1181.	3.87	34.56			27.47	72.4						
1478.	3.04	34.60			27.58	61.6						

CROMWELL 4, STATION 25, 11-23N LAT, 151- 0W LONG, MAY 28, 1964, 1200 G.C.T.
DRY BULB 25.7 WET BULB 23.8 WIND SPEED 20, DIR. 06 BAR. 14 WEATHER 03 VIS. 7 CLOUD TYPE 8, COVER 7

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.34	34.58			22.63	522.6	0.	26.34	34.58	22.63	522.6	0.000
8.	26.29	34.57			22.64	522.1	10.	26.29	34.57	22.64	522.1	0.053
30.Δ	26.29	34.57			22.64	523.0	20.	26.28	34.57	22.64	522.4	0.105
50.Δ	26.29	34.57			22.64	523.8	30.	26.29	34.57	22.64	523.0	0.158
75.Δ	26.32	34.57			22.63	525.7	50.	26.29	34.57	22.64	523.8	0.263
88.	24.55	34.63			23.22	469.9	75.	26.32	34.57	22.63	525.7	0.396
109.	20.15	34.80			24.59	339.7	100.	22.00	34.73	24.04	392.3	0.511
132.	18.22	34.78			25.07	294.6	150.	16.08	34.54	25.39	263.9	0.676
155.	15.38	34.46			25.49	254.6	200.	11.77	34.51	26.27	181.0	0.789
168.	13.37	34.34			25.83	222.6	250.	10.70	34.66	26.58	151.9	0.872
197.	11.87	34.48			26.23	184.6	300.	9.71	34.61	26.72	139.6	0.946
221.	11.23	34.66			26.49	160.5	400.	8.55	34.60	26.89	124.3	1.079
244.	10.84	34.67			26.57	153.4	500.	7.53	34.55	27.01	114.1	1.199
266.	10.33	34.63			26.63	148.1	600.	6.57	34.52	27.12	104.2	1.310
350.	9.03	34.62*			26.84	129.2	700.	5.83	34.51	27.21	96.2	1.411
435.	8.26	34.58*			26.93	121.7	800.	5.25	34.52	27.29	88.8	1.505
523.	7.27	34.54*			27.04	111.4	1000.	4.29	34.55	27.42	76.6	1.672
699.	5.84	34.51*			27.21	96.3	1200.	3.60	34.58	27.51	68.0	1.818
885.	4.83	34.54*			27.35	83.1						
1065.	4.03	34.56*			27.46	73.4						
1325.	3.30	34.59*			27.55	64.4						

TEMPERATURE ERROR TEMP AT 100. METERS IS 0.18

CROMWELL 4, STATION 26, 10- 4N LAT, 148- 8W LONG, MAY 29, 1964, 0800 G.C.T.
DRY BULB 25.8 WET BULB 24.1 WIND SPEED 14, DIR. 12 BAR. 14 WEATHER 02 VIS. 8 CLOUD TYPE 5, COVER 7

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.87	34.24			22.21	563.1	0.	26.87	34.24	22.21	563.1	0.000
10.	26.84	34.24			22.22	562.5	10.	26.84	34.24	22.22	562.5	0.057
30.Δ	26.68	34.31			22.32	553.5	20.	26.78	34.27	22.26	559.1	0.113
50.Δ	26.30	34.38			22.49	537.8	30.	26.68	34.31	22.32	553.5	0.169
52.	26.16	34.39			22.55	532.9	50.	26.30	34.38	22.49	537.8	0.279
62.	19.94	34.47			24.39	356.6	75.	15.98	34.38	25.29	271.2	0.381
73.	16.39	34.38			25.20	279.8	100.	13.11	34.59	26.07	197.2	0.440
82.	14.87	34.39			25.55	246.8	150.	11.12	34.75	26.58	149.9	0.528
102.	12.99	34.62			26.12	192.9	200.	10.47	34.72	26.67	142.6	0.601
130.	11.66	34.74			26.47	160.1	250.	10.02	34.71	26.74	136.8	0.672
155.	11.02	34.75			26.60	148.6	300.	9.70	34.68	26.78	134.3	0.740
180.	10.65	34.71			26.63	145.7	400.	9.10	34.65	26.85	128.8	0.873
206.	10.42	34.72			26.68	141.6	500.	8.18	34.59	26.94	121.0	0.999
263.	9.91	34.70			26.75	135.8	600.	7.16	34.56	27.07	109.5	1.115
308.	9.66	34.68			26.78	134.1	700.	6.29	34.54	27.17	100.3	1.221
411.	9.02	34.65			26.86	128.0	800.	5.58	34.52	27.25	93.2	1.319
513.	8.04	34.58			26.96	119.7	1000.	4.57	34.55	27.39	80.6	1.495
613.	7.03	34.56			27.09	107.9	1200.	3.83	34.58	27.49	70.9	1.648
816.	5.48	34.52			27.26	92.2	1500.	3.00	34.61	27.59	60.6	1.848
1016.	4.51	34.55			27.40	79.7						
1217.	3.78	34.58			27.50	70.2						
1518.	2.96	34.61			27.60	60.1						

ΔFROM BT DATA
*INTERPOLATED DATA

Table 1.--Continued

CROMWELL 4, STATION 27, 11-38N LAT, 148- 8W LONG, MAY 29, 1964, 1700 G.C.T.
DRY BULB 25.6 WET BULB 23.8 WIND SPEED 21, DIR. 07 BAR. 14 WEATHER 03 VIS. 7 CLOUD TYPE 4, COVER 8

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.19	34.66			22.74	512.3	0.	26.19	34.66	22.74	512.3	0.000
10.	26.20	34.66			22.74	513.0	10.	26.20	34.66	22.74	513.0	0.052
30.Δ	26.20	34.66			22.74	513.8	20.	26.20	34.66	22.74	513.5	0.103
50.Δ	26.20	34.66			22.74	514.6	30.	26.20	34.66	22.74	513.8	0.155
76.	23.22	34.78			23.72	421.2	50.	26.20	34.66	22.74	514.6	0.259
101.	21.78	35.02			24.31	365.7	75.	23.35	34.77	23.68	425.3	0.377
125.	19.34	35.02			24.97	304.1	100.	21.83	35.01	24.29	367.8	0.477
151.	14.80	34.41			25.58	245.9	150.	14.98	34.43	25.56	247.7	0.632
177.	11.88	34.29			26.08	198.3	200.	11.37	34.52	26.36	172.6	0.738
193.	11.43	34.45			26.29	178.8	250.	10.96	34.70	26.57	153.2	0.820
225.	11.30	34.71			26.51	158.1	300.	10.22	34.66	26.67	144.5	0.895
252.	10.93	34.70			26.57	153.0	400.	8.99	34.62	26.84	129.7	1.033
279.	10.61	34.72			26.65	146.5	500.	7.76	34.56	26.99	116.5	1.158
304.	10.14	34.65			26.67	144.2	600.	6.72	34.52	27.10	106.2	1.270
405.	8.94	34.62			26.85	128.8	700.	5.95	34.52	27.20	97.0	1.373
507.	7.68	34.56			27.00	115.7	800.	5.35	34.54	27.29	89.0	1.467
607.	6.66	34.52			27.11	105.5	1000.	4.43	34.56	27.41	77.8	1.636
808.	5.31	34.54			27.30	88.4	1200.	3.81	34.58	27.49	70.4	1.786
1010.	4.39	34.56			27.42	77.4	1500.	3.09	34.62	27.59	61.0	1.986
1210.	3.78	34.58			27.50	70.1						
1512.	3.07	34.62			27.60	60.7						

CROMWELL 4, STATION 28, 13- ON LAT, 148- 6W LONG, MAY 30, 1964, 0200 G.C.T.
DRY BULB 26.5 WET BULB 23.7 WIND SPEED 15, DIR. 07 BAR. 14 WEATHER 02 VIS. 7 CLOUD TYPE 7, COVER 6

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	25.25	34.69			23.05	482.4	0.	25.25	34.69	23.05	482.4	0.000
10.	25.24	34.70			23.06	481.8	10.	25.24	34.70	23.06	481.8	0.049
30.Δ	25.24	34.70			23.06	482.6	20.	25.24	34.70	23.06	482.1	0.097
50.Δ	25.22	34.70			23.07	482.8	30.	25.24	34.70	23.06	482.6	0.146
76.	22.50	34.82			23.96	398.6	50.	25.22	34.70	23.07	482.8	0.243
102.	20.68	35.09			24.67	332.0	75.	22.62	34.81	23.92	402.4	0.354
127.	18.40	34.88			25.10	291.5	100.	20.81	35.08	24.62	336.4	0.447
153.	14.80	34.41			25.58	245.9	150.	15.23	34.46	25.52	251.3	0.596
179.	11.78	34.36			26.15	191.4	200.	11.45	34.64	26.43	165.4	0.701
194.	11.49	34.59			26.39	169.6	250.	10.83	34.71	26.60	150.6	0.780
228.	11.26	34.72			26.53	156.8	300.	10.21	34.67	26.68	143.7	0.854
255.	10.73	34.70			26.61	149.5	400.	9.14	34.61	26.81	132.8	0.994
281.	10.43	34.68			26.65	146.4	500.	8.00	34.56	26.95	120.1	1.122
308.	10.12	34.67			26.69	142.5	600.	6.94	34.54	27.09	107.7	1.237
409.	9.04	34.60			26.82	132.0	700.	6.12	34.54	27.19	98.1	1.341
511.	7.87	34.56			26.97	118.6	800.	5.48	34.54	27.27	90.6	1.436
613.	6.81	34.54			27.10	106.2	1000.	4.53	34.54	27.38	80.6	1.609
815.	5.40	34.54			27.29	89.7	1200.	3.88	34.58	27.48	71.5	1.763
1017.	4.47	34.54			27.39	79.9	1500.	3.07	34.59	27.57	62.9	1.968
1218.	3.83	34.58			27.49	70.8						
1520.	3.03	34.59			27.58	62.5						

CROMWELL 4, STATION 29, 14-30N LAT, 147-58W LONG, MAY 30, 1964, 1100 G.C.T.
DRY BULB 25.0 WET BULB 22.9 WIND SPEED 16, DIR. 06 BAR. 15 WEATHER 50 VIS. 7 CLOUD TYPE 4, COVER 8

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.63	34.74			22.97	490.0	0.	25.63	34.74	22.97	490.0	0.000
10.	25.64	34.74			22.97	490.6	10.	25.64	34.74	22.97	490.6	0.049
30.Δ	25.64	34.74			22.97	491.4	20.	25.64	34.74	22.97	491.1	0.099
48.	25.65	34.74			22.97	492.5	30.	25.64	34.74	22.97	491.4	0.148
75.	24.70	34.57			23.13	478.1	50.	25.62	34.72	22.96	493.1	0.247
99.	22.61	34.83			23.94	401.7	75.	24.70	34.57	23.13	478.1	0.370
123.	19.99	34.71			24.56	342.6	100.	22.50	34.83	23.97	399.0	0.480
149.	17.64	34.67			25.13	289.5	150.	17.48	34.65	25.15	286.9	0.653
173.	13.93	34.32			25.70	235.3	200.	12.10	34.32	26.06	201.0	0.776
190.	12.66	34.30			25.94	212.4	250.	10.72	34.45	26.42	167.6	0.869
222.	11.25	34.38			26.27	181.4	300.	9.97	34.52	26.60	150.8	0.949
247.	10.75	34.44			26.40	168.8	400.	8.63	34.49	26.80	133.4	1.093
274.	10.51	34.53			26.52	158.7	500.	7.60	34.48	26.94	120.4	1.221
298.	10.00	34.52			26.60	151.3	600.	6.44	34.44	27.07	108.3	1.336
397.	8.66	34.49			26.79	133.8	700.	5.69	34.45	27.18	98.7	1.441
497.	7.64	34.48			26.94	120.8	800.	5.15	34.48	27.27	90.7	1.537
596.	6.48	34.44			27.07	108.8	1000.	4.28	34.52	27.40	78.8	1.708
795.	5.18	34.48			27.26	91.0	1200.	3.63	34.56	27.50	69.7	1.858
993.	4.31	34.52			27.39	79.1						
1191.	3.69	34.56			27.49	70.3						
1488.	2.97	34.61			27.60	60.1						

ΔFROM BT DATA

Table 1.--Continued

CROMWELL 4, STATION 30, 16- 1N LAT, 147-56W LONG, MAY 30, 1964, 2000 G.C.T.
DRY BULB 27.3 WET BULB 23.0 WIND SPEED 14, DIR. 06 BAR. 16 WEATHER 01 VIS. 7 CLOUD TYPE 6, COVER 7

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	24.74	34.61			23.15	473.4	0.	24.74	34.61	23.15	473.4	0.000
9.Δ	24.73	34.62			23.16	472.7	10.	24.70	34.62	23.17	471.7	0.048
30.Δ	23.86	34.71			23.48	442.3	20.	24.33	34.66	23.31	458.8	0.094
48.	23.32	34.79			23.70	422.2	30.	23.86	34.71	23.48	442.3	0.140
73.	22.45	34.95			24.07	387.7	50.	23.25	34.80	23.73	419.5	0.227
97.	21.69	35.12			24.42	356.0	75.	22.38	34.97	24.11	384.7	0.328
120.	21.33	35.20			24.58	341.6	100.	21.66	35.14	24.44	354.1	0.421
145.	19.73	35.06			24.90	311.6	150.	19.33	35.00	24.95	306.2	0.587
169.	17.52	34.73			25.20	283.0	200.	13.76	34.35	25.75	230.6	0.723
185.	15.56	34.50			25.48	256.4	250.	9.85	34.19	26.36	172.3	0.824
216.	12.04	34.24			26.01	205.8	300.	9.53	34.35	26.55	155.9	0.907
239.	10.23	34.18			26.29	178.9	400.	8.70	34.51	26.80	133.3	1.053
267.	9.62	34.23			26.43	165.7	500.	7.36	34.44	26.95	119.8	1.181
290.	9.57	34.32			26.51	158.8	600.	6.44	34.46	27.09	106.7	1.295
386.	8.88	34.51			26.77	135.6	700.	5.77	34.47	27.19	98.2	1.399
485.	7.53	34.44			26.92	122.0	800.	5.23	34.49	27.26	91.2	1.494
582.	6.58	34.46			27.07	108.5	1000.	4.27	34.53	27.41	77.7	1.665
775.	5.37	34.48			27.24	93.2	1200.	3.57	34.57	27.51	68.5	1.813
967.	4.40	34.53			27.39	79.3						
1162.	3.72	34.55			27.48	71.2						
1456.	3.00	34.61			27.60	60.2						

CROMWELL 4, STATION 31, 17-34N LAT, 148- 4W LONG, MAY 31, 1964, 0500 G.C.T.
DRY BULB 24.0 WET BULB 21.8 WIND SPEED 19, DIR. 08 BAR. 16 WEATHER 01 VIS. 8 CLOUD TYPE 3, COVER 3

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	24.14	34.67			23.37	452.0	0.	24.14	34.67	23.37	451.9	0.000
11.	24.09	34.66			23.38	451.7	10.	24.10	34.66	23.38	451.9	0.046
48.	23.15	34.78			23.74	418.2	20.	23.90	34.67	23.44	446.1	0.091
73.	22.72	35.00			24.03	391.5	30.	23.66	34.69	23.53	438.0	0.135
97.	22.22	35.07			24.23	373.8	50.	23.11	34.80	23.77	416.0	0.221
120.	21.85	35.14			24.39	359.7	75.	22.68	35.01	24.05	389.8	0.323
144.	20.24	35.13			24.82	319.3	100.	22.20	35.08	24.24	372.6	0.419
168.	18.85	34.94			25.03	299.4	150.	19.93	35.10	24.87	314.0	0.592
182.	17.52	34.74			25.21	282.7	200.	15.40	34.46	25.49	256.4	0.736
214.	13.78	34.28			25.70	236.3	250.	11.16	34.19	26.14	194.1	0.849
239.	11.75	34.18			26.02	205.5	300.	9.99	34.62	26.67	144.1	0.934
263.	10.65	34.26			26.28	180.7	400.	8.66	34.47	26.78	135.2	1.075
289.	10.17	34.58***			26.61	149.5	500.	7.54	34.46	26.94	121.0	1.205
384.	8.86	34.48			26.75	137.5	600.	6.59	34.46	27.07	108.7	1.321
480.	7.76	34.46			26.91	123.8	700.	5.90	34.47	27.17	99.9	1.426
576.	6.78	34.46			27.04	111.2	800.	5.36	34.48	27.25	93.0	1.524
767.	5.53	34.48*			27.22	95.2	1000.	4.47	34.52	27.37	81.4	1.700
959.	4.63	34.51*			27.35	83.6	1200.	3.75	34.55	27.48	71.8	1.855
1149.	3.93	34.54			27.45	74.4						
1436.	3.11	34.60			27.58	62.1						

CROMWELL 4, STATION 32, 18-59N LAT, 147-57W LONG, MAY 31, 1964, 1400 G.C.T.
DRY BULB 23.6 WET BULB 20.9 WIND SPEED 15, DIR. 08 BAR. 17 WEATHER 00 VIS. 8 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.85	34.59			23.40	449.5	0.	23.85	34.59	23.40	449.5	0.000
9.	23.86	34.56			23.37	452.3	10.	23.87	34.56	23.37	452.8	0.045
43.	23.64	34.54			23.42	448.9	20.	23.91	34.54	23.34	456.0	0.091
65.	22.51	34.62			23.81	412.9	30.	23.86	34.53	23.35	455.3	0.137
87.	21.81	34.74			24.09	386.2	50.	23.30	34.56	23.53	438.3	0.227
108.	21.10	34.92			24.43	355.3	75.	22.17	34.67	23.94	400.6	0.333
130.	19.52	34.93			24.85	315.2	100.	21.42	34.86	24.29	367.9	0.430
151.	18.54	34.82			25.02	300.0	150.	18.60	34.83	25.01	300.6	0.598
163.	17.39	34.66			25.18	284.9	200.	14.60	34.38	25.60	245.3	0.736
192.	15.30	34.46			25.51	253.9	250.	11.41	34.23	26.12	195.7	0.847
214.	13.47	34.27			25.75	230.9	300.	9.18	34.11	26.41	168.2	0.939
235.	12.45	34.29			25.97	210.3	400.	7.47	34.19	26.73	138.4	1.093
257.	10.92	34.20			26.19	189.6	500.	6.52	34.34	26.98	115.4	1.221
340.	8.35	34.10			26.54	156.8	600.	5.85	34.40	27.12	103.1	1.332
421.	7.27	34.23			26.80	132.7	700.	5.31	34.44	27.21	94.9	1.432
501.	6.51	34.34			26.99	115.2	800.	4.82	34.47	27.30	87.1	1.524
662.	5.52	34.42			27.18	98.3	1000.	4.04	34.52	27.43	75.6	1.688
825.	4.71	34.48			27.32	85.4	1200.	3.50	34.55	27.50	68.5	1.834
990.	4.09	34.52			27.42	76.4						
1274.	3.36	34.56			27.52	67.0						

TEMPERATURE ERROR TERM AT 300. METERS IS 0.15

ΔFROM BT DATA
*INTERPOLATED DATA
***SAMPLE BOTTLE CRACKED

Table 1.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 4, STATION 33, 20-30N LAT, 147-59W LONG, MAY 31, 1964, 2300 G.C.T.
DRY BULB 24.1 WET BULB 20.7 WIND SPEED 20, DIR. 08 BAR. 20 WEATHER 02 VIS. 8 CLOUD TYPE 8, COVER 2

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.69	34.56			23.42	447.2	0.	23.69	34.56	23.42	447.2	0.000
10.	23.56	34.55			23.45	444.7	10.	23.56	34.55	23.45	444.7	0.045
51.	22.42	34.84			24.00	394.0	20.	23.30	34.61	23.57	433.9	0.089
77.	21.97	34.92			24.19	377.1	30.	23.03	34.67	23.70	422.1	0.132
102.	21.70	35.16			24.44	353.6	50.	22.45	34.83	23.98	395.5	0.215
128.	21.35	35.18			24.55	343.8	75.	22.00	34.91	24.17	378.4	0.312
154.	21.15	35.22			24.64	336.7	100.	21.72	35.14	24.42	355.3	0.405
179.	20.15	35.18			24.88	314.7	150.	21.20	35.22	24.62	338.2	0.579
195.	18.99	34.98			25.03	300.8	200.	18.59	34.91	25.07	296.4	0.739
228.	16.29	34.60			25.39	266.4	250.	14.62	34.60	25.76	231.4	0.872
256.	14.19	34.59			25.85	223.1	300.	11.52	34.13	26.02	206.4	0.983
283.	12.43	34.22			25.92	216.2	400.	8.27	34.09	26.54	157.2	1.166
307.	11.18	34.11			26.07	201.9	500.	6.58	34.21	26.87	126.0	1.309
409.	8.10	34.11			26.58	153.5	600.	5.91	34.33	27.06	109.3	1.428
510.	6.47	34.22			26.90	123.7	700.	5.39	34.41	27.18	97.9	1.533
610.	5.87	34.34			27.07	108.1	800.	4.92	34.46	27.28	89.5	1.627
813.	4.86	34.46*			27.29	88.6	1000.	4.20	34.51	27.40	78.8	1.798
1015.	4.16	34.51			27.40	78.2	1200.	3.64	34.54	27.48	71.4	1.950
1213.	3.61	34.54			27.48	71.0	1500.	2.93	34.58	27.58	61.9	2.153
1514.	2.90	34.58			27.58	61.6						

CROMWELL 4, STATION 34, 22- 3N LAT, 147-58W LONG, JUNE 1, 1964, 1400 G.C.T.
DRY BULB 22.5 WET BULB 19.0 WIND SPEED 10, DIR. 07 BAR. 21 WEATHER 02 VIS. 8 CLOUD TYPE 8, COVER 2

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.32	34.78			23.69	421.0	0.	23.32	34.78	23.69	421.0	0.000
11.	23.33	34.78			23.69	421.7	10.	23.33	34.78	23.69	421.8	0.042
57.	22.64	35.09			24.13	382.2	20.	23.24	34.83	23.76	415.9	0.085
82.	22.24	35.14			24.28	368.7	30.	23.12	34.89	23.84	408.4	0.126
108.	21.66	35.14			24.44	354.2	50.	22.79	35.04	24.04	389.8	0.207
137.	21.16	35.22			24.64	336.3	75.	22.36	35.13	24.24	372.2	0.303
163.	20.34	35.14			24.80	321.8	100.	21.84	35.14	24.39	358.7	0.395
189.	18.92	35.00			25.06	297.4	150.	20.81	35.19	24.71	329.6	0.568
215.	17.41	34.79			25.27	277.6	200.	18.31	34.92	25.15	289.0	0.724
241.	15.51	34.53			25.52	254.8	250.	14.90	34.45	25.59	247.7	0.859
269.	13.67	34.31			25.74	233.4	300.	11.78	34.14	25.98	210.6	0.975
294.	12.10	34.16			25.94	214.7	400.	8.45	34.04	26.48	163.6	1.164
322.	10.74	34.08			26.13	196.8	500.	6.35	34.06	26.79	133.4	1.314
428.	7.91	34.06			26.57	154.7	600.	5.17	34.18	27.02	111.2	1.437
534.	5.77	34.08			26.88	125.1	700.	4.70	34.32	27.19	95.7	1.542
637.	4.98	34.24			27.10	104.5	800.	4.39	34.42	27.31	85.4	1.633
847.	4.30	34.46			27.35	82.1	1000.	3.87	34.51	27.43	74.5	1.795
1054.	3.74	34.52			27.45	72.7	1200.	3.43	34.56	27.51	67.4	1.939
1259.	3.31	34.57			27.53	65.5	1500.	2.82	34.60	27.60	59.3	2.131
1565.	2.71	34.60			27.61	58.1						

CROMWELL 4, STATION 35, 23-32N LAT, 147-59W LONG, JUNE 1, 1964, 2200 G.C.T.
DRY BULB 23.0 WET BULB 19.4 WIND SPEED 15, DIR. 11 BAR. 22 WEATHER 02 VIS. 9 CLOUD TYPE 8, COVER 1

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.44	35.08			23.89	402.7	0.	23.44	35.08	23.89	402.7	0.000
10.	22.93	35.05			24.01	391.2	10.	22.93	35.05	24.01	391.2	0.040
51.	22.11	35.19			24.35	360.4	20.	22.65	35.07	24.11	382.5	0.079
77.	21.42	35.22			24.57	340.9	30.	22.42	35.10	24.19	374.6	0.117
103.	21.38	35.24			24.59	339.4	50.	22.12	35.18	24.34	361.0	0.191
127.	21.02	35.29			24.73	327.2	75.	21.46	35.22	24.55	342.1	0.280
154.	20.59	35.29			24.84	317.1	100.	21.38	35.24	24.59	339.4	0.366
179.	20.20	35.26			24.93	310.2	150.	20.65	35.29	24.83	318.4	0.531
195.	19.75	35.18*			24.98	305.2	200.	19.48	35.13	25.02	302.2	0.688
229.	17.66	34.82			25.24	281.7	250.	16.50	34.65	25.38	268.3	0.832
256.	16.14	34.60			25.43	263.9	300.	12.69	34.22	25.87	221.2	0.955
283.	13.92	34.34*			25.71	236.6	400.	9.07	34.06	26.39	172.1	1.153
308.	12.16	34.18			25.94	214.7	500.	6.63	34.01	26.71	141.0	1.311
410.	8.91	34.07			26.43	168.9	600.	5.18	34.34	27.15	99.3	1.433
512.	6.38	34.02			26.75	137.3	700.	4.58	34.43	27.30	85.9	1.526
613.	5.06	34.39			27.21	94.1	800.	4.36	34.39	27.28	87.8	1.614
815.	4.36	34.37			27.27	89.1	1000.	3.95	34.48	27.40	77.9	1.782
1017.	3.92	34.49			27.41	76.8	1200.	3.48	34.51	27.47	71.6	1.933
1218.	3.44	34.51			27.47	71.2	1500.	2.92	34.56	27.56	63.3	2.138
1519.	2.89	34.56			27.57	63.0						

*INTERPOLATED DATA

Table 1.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 4, STATION 36, 25- ON LAT, 147-59W LONG, JUNE 2, 1964, 0800 G.C.T.
DRY BULB 23.0 WET BULB 20.5 WIND SPEED 11, DIR. 13 BAR. 23 WEATHER 02 VIS. 9 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	22.98	35.24			24.14	378.5	0.	22.98	35.24	24.14	378.5	0.000
10.	22.32	35.28			24.36	358.0	10.	22.32	35.28	24.36	358.0	0.037
49.	21.14	35.33			24.73	324.6	20.	21.86	35.30	24.51	344.4	0.072
75.	20.95	35.34			24.79	319.9	30.	21.51	35.32	24.62	334.4	0.107
99.	20.73	35.32			24.83	316.5	50.	21.13	35.33	24.73	324.3	0.173
123.	20.36	35.28			24.90	310.8	75.	20.95	35.34	24.79	319.9	0.254
147.	19.52	35.14			25.01	300.6	100.	20.72	35.32	24.83	316.3	0.334
171.	18.63	34.97			25.11	292.0	150.	19.42	35.12	25.02	299.7	0.489
186.	17.88	34.86			25.21	282.6	200.	16.92	34.72	25.34	271.1	0.633
219.	15.47	34.52			25.52	254.0	250.	13.34	34.30	25.80	227.2	0.759
245.	13.51	34.31			25.77	230.0	300.	11.30	34.12	26.06	202.9	0.867
270.	12.68	34.26			25.90	217.7	400.	8.69	34.07	26.46	165.1	1.053
293.	11.55	34.14			26.03	206.1	500.	6.52	34.02	26.74	138.7	1.206
392.	8.90	34.08			26.43	167.7	600.	5.37	34.10	26.94	119.2	1.337
490.	6.67	34.02			26.71	140.9	700.	4.67	34.21	27.11	103.7	1.449
588.	5.48	34.09			26.92	121.3	800.	4.27	34.32	27.24	91.9	1.548
783.	4.32	34.30			27.22	93.5	1000.	3.89	34.47	27.40	77.7	1.720
978.	3.93	34.46			27.39	78.8	1200.	3.47	34.54	27.50	69.0	1.868
1172.	3.53	34.52			27.47	71.2						
1466.	2.90	34.56			27.57	62.7						

CROMWELL 4, STATION 37, 26-29N LAT, 148- OW LONG, JUNE 2, 1964, 1700 G.C.T.
DRY BULB 22.2 WET BULB 20.1 WIND SPEED 11, DIR. 22 BAR. 21 WEATHER 01 VIS. 9 CLOUD TYPE 8, COVER 2

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	22.33	35.32			24.39	355.0	0.	22.33	35.32	24.39	355.0	0.000
9.	22.24	35.29			24.39	355.1	10.	22.22	35.29	24.39	354.8	0.036
48.	21.39	35.29			24.63	334.0	20.	22.04	35.28	24.44	350.9	0.071
73.	20.85	35.29			24.77	320.8	30.	21.83	35.28	24.50	345.8	0.106
97.	20.49	35.29			24.87	312.4	50.	21.34	35.29	24.64	332.8	0.175
119.	19.94	35.22			24.96	304.3	75.	20.82	35.29	24.78	320.1	0.257
145.	18.95	35.02			25.07	295.2	100.	20.43	35.29	24.88	311.3	0.337
168.	17.71	34.82			25.22	280.9	150.	18.72	34.98	25.09	292.8	0.489
182.	16.66	34.68			25.37	267.4	200.	15.34	34.50	25.53	252.1	0.626
214.	14.40	34.38			25.64	241.6	250.	12.54	34.21	25.89	218.2	0.745
240.	13.03	34.26			25.83	223.7	300.	11.04	34.13	26.11	198.0	0.850
263.	12.00	34.16			25.96	212.1	400.	8.32	34.04	26.49	162.1	1.031
287.	11.40	34.14			26.05	203.2	500.	6.42	34.02	26.75	137.6	1.183
381.	8.80	34.05			26.43	168.1	600.	5.49	34.10	26.93	120.6	1.313
475.	6.74	34.01			26.70	142.4	700.	4.77	34.21	27.10	104.7	1.427
567.	5.78	34.07			26.87	126.4	800.	4.29	34.32	27.23	92.2	1.526
751.	4.49	34.27			27.18	97.5	1000.	3.78	34.45	27.39	78.1	1.699
939.	3.91	34.42			27.36	81.2	1200.	3.36	34.53	27.49	68.9	1.848
1125.	3.56	34.49			27.45	73.4						
1410.	3.00	34.56			27.56	63.6						

CROMWELL 4, STATION 38, 25- ON LAT, 151- OW LONG, JUNE 3, 1964, 1100 G.C.T.
DRY BULB 23.3 WET BULB 21.7 WIND SPEED 16, DIR. 25 BAR. 18 WEATHER 02 VIS. 8 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
2.	23.26	35.22			24.05	387.7	0.	23.26	35.22	24.05	387.6	0.000
9.	23.26	35.24			24.06	386.5	10.	23.22	35.24	24.07	385.2	0.039
30.Δ	22.14	35.30			24.43	352.5	20.	22.73	35.27	24.24	370.3	0.077
42.	21.77	35.33			24.55	340.9	30.	22.14	35.30	24.43	352.5	0.113
67.	21.37	35.34			24.67	330.5	50.	21.61	35.34	24.60	336.3	0.183
88.	21.06	35.30			24.73	326.1	75.	21.29	35.33	24.69	329.3	0.267
109.	20.00	35.14			24.89	311.3	100.	20.50	35.22	24.81	318.3	0.348
131.	18.81	34.98			25.07	294.2	150.	17.99	34.87	25.19	283.2	0.500
152.	17.91	34.86			25.21	282.1	200.	14.85	34.49	25.63	242.3	0.632
167.	17.18	34.76			25.31	272.9	250.	12.56	34.30	25.96	211.7	0.747
193.	15.25	34.54			25.58	247.1	300.	11.25	34.23	26.15	194.5	0.849
216.	14.03	34.40			25.74	232.6	400.	9.23	34.10	26.40	171.4	1.034
240.	12.88	34.32			25.91	216.4	500.	6.68	34.02	26.71	141.4	1.192
261.	12.26	34.29			26.01	207.4	600.	5.21	34.07	26.94	119.5	1.323
345.	10.25	34.16			26.27	183.0	700.	4.68	34.20	27.10	104.5	1.437
429.	8.67	34.08			26.47	164.8	800.	4.27	34.31	27.23	92.7	1.536
513.	6.33	34.01			26.75	137.4	1000.	3.73	34.46	27.41	76.4	1.707
683.	4.77	34.18			27.07	106.9	1200.	3.28	34.54	27.51	67.3	1.853
855.	4.12	34.36			27.29	87.4						
1031.	3.66	34.48			27.43	74.6						
1308.	3.11	34.54			27.53	65.7						

TEMPERATURE ERROR TERM AT 600. METERS IS 0.14

ΔFROM BT DATA

Table 1.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 4, STATION 39, 24-56N LAT, 153-59W LONG, JUNE 4, 1964, 0200 G.C.T.
DRY BULB 23.5 WET BULB 20.1 WIND SPEED 12, DIR. 33 BAR. 17 WEATHER 02 VIS. 7 CLOUD TYPE 8, COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.09	35.07***			23.69	421.7	0.	24.09	35.07	23.69	421.7	0.000
10.	23.82	34.99			23.71	420.2	10.	23.82	34.99	23.71	420.2	0.042
50.	23.36	34.98			23.83	409.6	20.	23.69	34.96	23.72	419.4	0.085
79.	22.58	35.06			24.12	383.5	30.	23.57	34.95	23.75	417.3	0.127
103.	21.56	35.06			24.41	357.1	50.	23.36	34.98	23.83	409.6	0.210
129.	20.38	35.03			24.70	329.6	75.	22.71	35.05	24.07	387.8	0.311
154.	19.28	35.02			24.98	303.6	100.	21.70	35.06	24.37	360.5	0.405
180.	18.05	34.89			25.19	284.2	150.	19.46	35.02	24.94	307.5	0.573
195.	17.26	34.80*			25.32	272.8	200.	17.01	34.77	25.35	269.6	0.719
230.	15.45	34.56			25.55	251.0	250.	14.29	34.43	25.70	236.6	0.846
257.	13.90	34.39			25.76	231.8	300.	11.90	34.20	26.01	208.0	0.958
284.	12.67	34.27			25.91	217.1	400.	8.95	34.06	26.41	170.2	1.149
308.	11.52	34.17			26.05	203.7	500.	6.92	34.02	26.68	144.4	1.308
410.	8.77	34.06			26.44	167.5	600.	5.53	34.07	26.90	123.7	1.443
512.	6.71	34.02			26.71	141.8	700.	4.72	34.17	27.07	107.1	1.560
613.	5.40	34.08			26.92	121.3	800.	4.24	34.28	27.21	94.0	1.662
814.	4.20	34.30			27.23	92.4	1000.	3.84	34.45	27.39	78.7	1.836
1018.	3.82	34.46			27.40	77.8	1200.	3.41	34.52	27.48	70.2	1.987
1219.	3.37	34.52			27.49	69.6	1500.	2.82	34.56	27.57	61.9	2.188
1521.	2.78	34.56			27.58	61.6						

CROMWELL 4, STATION 40, 25- ON LAT, 157- 1W LONG, JUNE 4, 1964, 1900 G.C.T.
DRY BULB 23.3 WET BULB 19.4 WIND SPEED 02, DIR. 27 BAR. 19 WEATHER 03 VIS. 8 CLOUD TYPE 8, COVER 6

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.71	35.28			23.96	395.8	0.	23.71	35.28	23.96	395.8	0.000
10.	23.48	35.28			24.03	389.8	10.	23.48	35.28	24.03	389.8	0.040
51.	22.30	35.30			24.38	357.6	20.	23.17	35.28	24.12	381.3	0.078
76.	22.05	35.32			24.47	350.4	30.	22.87	35.29	24.21	373.2	0.116
102.	21.45	35.31			24.63	336.1	50.	22.33	35.30	24.37	358.3	0.190
126.	20.62	35.22			24.78	321.9	75.	22.06	35.32	24.46	350.6	0.279
152.	19.22	35.04			25.01	300.6	100.	21.51	35.31	24.61	337.4	0.366
177.	18.01	34.86			25.18	285.3	150.	19.33	35.06	25.00	302.2	0.527
192.	17.29	34.78			25.29	274.8	200.	16.97	34.74	25.34	270.8	0.672
226.	15.82	34.60			25.50	256.0	250.	14.22	34.46	25.74	233.2	0.799
253.	14.02	34.44			25.77	230.5	300.	12.09	34.25	26.01	208.1	0.910
278.	12.94	34.34			25.91	217.1	400.	9.07	34.08	26.41	170.3	1.101
305.	11.91	34.23			26.03	206.3	500.	6.61	34.00	26.71	141.7	1.258
405.	8.94	34.08			26.43	168.6	600.	5.19	34.10	26.96	116.8	1.389
500.	6.61	34.00			26.71	141.7	700.	4.68	34.21	27.10	104.0	1.501
578.	5.37	34.08			26.93	120.5	800.	4.37	34.30	27.21	94.5	1.601
735.	4.62	34.24			27.14	101.1	1000.	3.73	34.44	27.39	78.4	1.776
891.	4.07	34.37			27.30	86.4	1200.	3.23	34.52	27.50	67.7	1.924
1048.	3.60	34.46			27.42	75.5						
1283.	3.06	34.54			27.53	64.9						

CROMWELL 4, STATION 41, 23-30N LAT, 156-59W LONG, JUNE 5, 1964, 0500 G.C.T.
DRY BULB 24.0 WET BULB 20.0 WIND SPEED 05, DIR. 20 BAR. 17 WEATHER 01 VIS. 8 CLOUD TYPE 8, COVER 2

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.58	35.14			23.59	430.6	0.	24.58	35.14	23.59	430.6	0.000
10.	24.15	35.10			23.69	421.6	10.	24.15	35.10	23.69	421.6	0.043
30.Δ	23.88	35.12			23.79	413.3	20.	23.96	35.10	23.75	416.8	0.085
52.	23.61	35.18			23.91	402.3	30.	23.88	35.12	23.79	413.3	0.127
78.	23.42	35.20			23.98	396.5	50.	23.63	35.17	23.90	403.2	0.209
104.	22.70	35.18			24.18	379.1	75.	23.45	35.20	23.97	397.3	0.310
129.	22.52	35.18			24.23	375.2	100.	22.81	35.18	24.15	381.7	0.408
154.	20.19	35.08			24.79	322.0	150.	20.61	35.10	24.70	331.0	0.588
181.	18.63	34.93			25.08	295.2	200.	17.41	34.82	25.30	274.6	0.740
196.	17.65	34.85			25.26	278.2	250.	14.13	34.44	25.75	232.3	0.868
230.	15.54	34.60			25.56	250.0	300.	11.62	34.20	26.06	203.1	0.978
256.	13.72	34.40			25.80	227.5	400.	9.00	34.13	26.46	165.7	1.164
282.	12.33	34.24			25.96	212.8	500.	7.17	34.10	26.71	142.1	1.319
308.	11.34	34.19			26.10	199.0	600.	5.89	34.17	26.93	121.1	1.452
408.	8.85	34.13			26.48	163.5	700.	4.99	34.26	27.11	104.0	1.566
506.	7.08	34.10			26.72	140.9	800.	4.40	34.35	27.25	90.9	1.665
604.	5.85	34.17			26.94	120.3	1000.	3.87	34.48	27.41	76.6	1.834
799.	4.40	34.35			27.25	90.9	1200.	3.42	34.55	27.51	67.5	1.980
992.	3.89	34.48			27.41	77.0						
1187.	3.45	34.54*			27.50	68.9						
1479.	2.89	34.59			27.59	60.5						

ΔFROM BT DATA
*INTERPOLATED DATA
***SAMPLE BOTTLE CRACKED

Table 1.--Continued

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
CROMWELL 4, STATION 42, 22- ON LAT, 157- 2W LONG, JUNE 5, 1964, 1500 G.C.T.												
DRY BULB 24.8		WET BULB 21.0			WIND SPEED 15, DIR. 05		BAR. 19		WEATHER 02	VIS. 8	CLOUD TYPE 8, COVER 1	
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.30	34.71			23.35	453.6	0.	24.30	34.71	23.35	453.6	0.000
11.Δ	24.31	34.71			23.35	454.3	10.	24.33	34.71	23.35	454.8	0.046
30.Δ	23.40	34.76			23.66	425.9	20.	23.90	34.73	23.49	441.7	0.091
50.	23.27	34.79			23.72	420.9	30.	23.40	34.76	23.66	425.9	0.135
76.	23.03	34.93			23.89	405.1	50.	23.27	34.79	23.72	420.9	0.220
101.	22.80	35.00			24.01	394.7	75.	23.04	34.92	23.89	405.8	0.324
126.	22.65	35.07			24.11	386.5	100.	22.81	35.00	24.01	395.1	0.425
151.	21.92	35.16			24.38	361.2	150.	21.96	35.16	24.37	362.4	0.616
174.	20.94	35.14			24.64	337.7	200.	20.04	35.08	24.83	320.0	0.788
191.	20.31	35.10			24.77	325.0	250.	17.39	34.77	25.26	279.9	0.939
223.	19.16	34.98			24.98	305.9	300.	13.24	34.29	25.81	227.5	1.067
253.	17.16	34.74			25.30	276.7	400.	9.07	34.15	26.46	165.7	1.265
277.	15.35	34.57			25.58	249.5	500.	7.15	34.14	26.74	139.0	1.419
302.	13.06	34.26			25.83	225.9	600.	5.99	34.20	26.94	120.0	1.550
401.	9.06	34.15			26.46	165.2	700.	5.30	34.30	27.11	104.9	1.663
502.	7.13	34.14			26.74	138.6	800.	4.87	34.40	27.24	93.1	1.764
601.	5.98	34.20			26.94	119.8	1000.	4.15	34.49	27.39	79.5	1.938
802.	4.86	34.40			27.24	92.9	1200.	3.57	34.53	27.48	71.1	2.091
1001.	4.15	34.49			27.39	79.5						
1200.	3.57	34.53			27.48	71.1						
1497.	2.90	34.58			27.58	61.5						

ΔFROM BT DATA

Table 2.--Original and derived oceanographic data for Townsend Cromwell cruise 5

CROMWELL 5, STATION 1, 20-35N LAT, 157-16W LONG, JUNE 16, 1964, 0800 G.C.T.
DRY BULB 25.0 WET BULB 22.2 WIND SPEED 16, DIR. 12 BAR. 17 WEATHER 01 VIS. 8 CLOUD TYPE , COVER

ORIGINAL DATA							DERIVED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.77	34.78			22.96	491.2	0.	25.77	34.78	22.96	491.2	0.000
11.	25.75	34.78			22.97	491.1	10.	25.77	34.78	22.96	491.4	0.049
30.Δ	24.96	34.76			23.19	470.1	20.	25.39	34.77	23.07	481.5	0.098
48.	24.88	34.76			23.22	468.5	30.	24.96	34.76	23.19	470.1	0.146
74.	24.49	34.73			23.31	460.5	50.	24.87	34.75	23.21	469.0	0.241
98.	23.53	35.15			23.91	404.0	75.	24.46	34.75	23.34	458.3	0.358
122.	22.41	35.11			24.21	377.0	100.	23.45	35.16	23.94	401.5	0.466
147.	20.68	35.09			24.67	333.6	150.	20.55	35.08	24.70	330.9	0.651
170.	19.72	35.02			24.87	315.1	200.	18.28	34.90	25.15	289.3	0.807
184.	18.90	34.96			25.03	299.7	250.	14.98	34.53	25.63	243.6	0.941
217.	17.52	34.82			25.27	278.0	300.	11.79	34.25	26.07	202.6	1.054
242.	15.41	34.58			25.58	249.0	400.	8.26	34.14	26.58	153.6	1.233
268.	14.06	34.44			25.76	231.7	500.	6.49	34.20	26.88	125.1	1.374
292.	12.24	34.28			26.00	208.5	600.	5.76	34.30	27.05	109.8	1.493
388.	8.58	34.14			26.53	158.2	700.	5.23	34.38	27.18	97.6	1.598
486.	6.64	34.19			26.85	127.9	800.	4.83	34.45	27.28	88.9	1.692
583.	5.87	34.28			27.02	112.2	1000.	4.20	34.51	27.39	78.9	1.862
778.	4.91	34.44			27.26	90.3	1200.	3.58	34.55	27.49	70.0	2.013
973.	4.30	34.50			27.38	80.3						
1168.	3.63	34.54			27.48	70.9						
1461.	2.92	34.58			27.58	61.5						

CROMWELL 5, STATION 2, 19- ON LAT, 157- OW LONG, JUNE 16, 1964, 1800 G.C.T.
DRY BULB 25.2 WET BULB 22.4 WIND SPEED 19, DIR. 11 BAR. 16 WEATHER 01 VIS. 7 CLOUD TYPE 6, COVER 6

ORIGINAL DATA							INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.02	34.64			22.78	508.7	0.	26.02	34.64	22.78	508.7	0.000
11.	25.99	34.64			22.79	508.3	10.	25.99	34.64	22.79	508.3	0.051
30.Δ	25.99	34.64			22.79	509.0	20.	26.01	34.64	22.78	509.3	0.102
51.	25.55	34.68			22.95	493.9	30.	25.99	34.64	22.79	509.0	0.154
76.	24.41	35.00			23.54	438.8	50.	25.58	34.68	22.94	495.2	0.255
101.	23.74	35.15			23.85	410.0	75.	24.46	34.99	23.52	441.1	0.373
125.	22.41	35.16			24.24	373.5	100.	23.77	35.15	23.84	411.0	0.480
149.	19.80	34.96			24.80	320.7	150.	19.73	34.96	24.82	319.4	0.664
176.	17.64	34.74			25.18	285.3	200.	15.14	34.43	25.52	253.3	0.809
188.	15.90	34.52			25.42	262.4	250.	12.18	34.23	25.98	210.0	0.925
223.	14.32	34.36			25.64	241.6	300.	9.95	34.18	26.34	175.5	1.023
250.	12.18	34.23			25.98	210.0	400.	7.73	34.16	26.68	144.2	1.184
276.	11.10	34.20			26.15	193.2	500.	6.06	34.16	26.90	122.5	1.318
300.	9.95	34.18			26.34	175.5	600.	5.67	34.33	27.09	106.1	1.434
400.	7.73	34.16			26.68	144.2	700.	5.24	34.42	27.21	95.0	1.536
500.	6.06	34.16			26.90	122.5	800.	4.80	34.47	27.30	87.0	1.628
600.	5.67	34.33			27.09	106.1	1000.	4.03	34.54	27.44	74.3	1.791
800.	4.80	34.47			27.30	87.0	1200.	3.52	34.57	27.51	67.6	1.934
1000.	4.03	34.54			27.44	74.3	1500.	2.79	34.61	27.61	58.0	2.125
1200.	3.52	34.57			27.51	67.6						
1500.	2.79	34.61			27.61	58.0						

TEMPERATURE ERROR TERM AT 200. METERS IS 0.25

CROMWELL 5, STATION 3, 17-30N LAT, 157- OW LONG, JUNE 17, 1964, 0300 G.C.T.
DRY BULB 25.1 WET BULB 22.5 WIND SPEED 22, DIR. 08 BAR. 15 WEATHER CO VIS. 7 CLOUD TYPE 8, COVER 6

ORIGINAL DATA							INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.09	34.64			23.06	481.4	0.	25.09	34.64	23.06	481.4	0.000
9.	25.09	34.65			23.07	481.0	10.	25.09	34.65	23.07	481.0	0.048
30.Δ	25.09	34.65			23.07	481.8	20.	25.09	34.65	23.07	481.3	0.097
48.	25.06	34.65			23.08	481.7	30.	25.09	34.65	23.07	481.8	0.145
72.	24.05	34.69			23.41	450.7	50.	24.98	34.65	23.10	479.7	0.242
95.	24.00	35.08			23.72	422.1	75.	24.04	34.74	23.45	446.9	0.359
119.	23.11	35.13			24.02	394.6	100.	23.91	35.11	23.77	417.4	0.468
143.	20.81	35.00			24.56	343.3	150.	20.36	34.98	24.67	333.1	0.657
168.	19.42	34.93			24.88	314.1	200.	17.38	34.70	25.21	282.8	0.812
181.	18.80	34.84			24.97	305.8	250.	13.12	34.31	25.86	221.8	0.939
214.	16.19	34.60			25.42	263.7	300.	10.98	34.23	26.20	189.7	1.043
239.	14.26	34.42			25.70	236.5	400.	8.32	34.25	26.66	146.2	1.213
262.	12.04	34.22			26.00	208.4	500.	6.89	34.27	26.88	125.7	1.350
285.	11.43	34.22			26.11	197.8	600.	6.26	34.40	27.07	108.7	1.468
382.	8.70	34.26			26.61	151.1	700.	5.68	34.46	27.18	98.2	1.573
477.	7.10	34.24			26.83	130.4	800.	5.15	34.48	27.27	90.6	1.668
573.	6.43	34.38			27.03	112.2	1000.	4.26	34.53	27.40	78.1	1.839
765.	5.34	34.47			27.24	93.5	1200.	3.57	34.55	27.50	69.3	1.988
956.	4.42	34.52			27.38	80.1						
1148.	3.78	34.54			27.46	72.5						
1438.	2.93	34.58			27.58	61.5						

ΔFROM BT DATA

Table 2.--Continued

CROMWELL 5, STATION 4, 16- ON LAT, 156-59W LONG, JUNE 17, 1964, 1300 G.C.T.
DRY BULB 25.1 WET BULB 22.3 WIND SPEED 19, DIR. 08 BAR. 14 WEATHER 00 VIS. 7 CLOUD TYPE , COVER

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.30	34.57			22.95	492.5	0.	25.30	34.57	22.95	492.5	0.000
10.	25.32	34.57			22.94	493.5	10.	25.32	34.57	22.94	493.5	0.050
30.Δ	25.32	34.57			22.94	494.3	20.	25.32	34.57	22.94	494.0	0.099
50.Δ	25.32	34.57			22.94	495.1	30.	25.32	34.57	22.94	494.3	0.149
76.	24.21	34.65			23.34	458.3	50.	25.32	34.57	22.94	495.1	0.249
100.	23.01	34.92			23.89	406.2	75.	24.27	34.64	23.31	460.3	0.369
126.	21.77	35.02			24.32	366.4	100.	23.01	34.92	23.89	406.2	0.478
151.	19.92	35.02			24.82	319.4	150.	20.01	35.02	24.80	321.4	0.662
176.	16.74	34.62			25.30	273.4	200.	14.93	34.45	25.58	247.3	0.805
191.	15.64	34.51			25.47	257.6	250.	11.26	34.25	26.17	191.7	0.916
224.	13.05	34.31			25.87	220.0	300.	9.76	34.29	26.46	164.1	1.005
251.	11.20	34.25			26.18	190.7	400.	8.46	34.48	26.82	131.6	1.155
277.	10.29	34.22			26.31	177.8	500.	7.23	34.46	26.98	116.2	1.280
302.	9.72	34.30			26.47	162.9	600.	6.31	34.48	27.12	103.6	1.391
402.	8.44	34.48			26.82	131.2	700.	5.74	34.50	27.21	95.7	1.491
504.	7.19	34.46			26.99	115.7	800.	5.32	34.52	27.28	90.1	1.585
604.	6.28	34.48			27.13	103.2	1000.	4.47	34.55	27.40	79.0	1.756
807.	5.30	34.52			27.28	89.8	1200.	3.80	34.52	27.45	74.6	1.912
1008.	4.44	34.55			27.40	78.7	1500.	3.02	34.61	27.59	61.0	2.118
1208.	3.78	34.52			27.45	74.5						
1510.	3.00	34.61			27.60	60.6						

CROMWELL 5, STATION 5, 14-30N LAT, 157- OW LONG, JUNE 17, 1964, 2300 G.C.T.
DRY BULB 26.0 WET BULB 22.5 WIND SPEED 22, DIR. 07 BAR. 15 WEATHER 03 VIS. 7 CLOUD TYPE 8, COVER 2

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.54	34.58			22.88	498.8	0.	25.54	34.58	22.88	498.8	0.000
10.Δ	25.49	34.58			22.90	497.8	10.	25.49	34.58	22.90	497.8	0.050
30.Δ	25.49	34.58			22.90	498.5	20.	25.48	34.58	22.90	497.9	0.100
50.	25.49	34.58			22.90	499.3	30.	25.49	34.58	22.90	498.5	0.151
75.	24.36	34.58			23.24	467.6	50.	25.49	34.58	22.90	499.3	0.251
100.	22.79	34.97			23.99	396.6	75.	24.36	34.58	23.24	467.6	0.373
125.	20.98	35.06			24.56	342.7	100.	22.79	34.97	23.99	396.6	0.482
150.	19.32	34.99			24.95	306.6	150.	19.32	34.99	24.95	306.6	0.659
175.	15.93	34.58			25.46	258.3	200.	13.00	34.42	25.97	210.1	0.789
190.	13.57	34.36			25.80	225.6	250.	10.34	34.44	26.48	161.9	0.883
223.	12.39	34.65			26.26	182.5	300.	10.33	34.66	26.65	146.5	0.961
250.	10.34	34.44			26.48	161.9	400.	9.36	34.64	26.80	134.0	1.102
275.	10.56	34.67			26.62	149.3	500.	8.29	34.58	26.92	123.3	1.232
301.	10.32	34.66			26.65	146.5	600.	7.29	34.54	27.04	112.9	1.351
401.	9.35	34.64			26.80	133.9	700.	6.42	34.52	27.14	103.3	1.460
501.	8.28	34.58			26.92	123.2	800.	5.69	34.52	27.23	94.8	1.561
601.	7.28	34.54			27.04	112.8	1000.	4.68	34.54	27.37	82.4	1.740
801.	5.68	34.52			27.24	94.7	1200.	3.91	34.56	27.47	73.1	1.897
1002.	4.67	34.54			27.37	82.3	1500.	3.06	34.60	27.58	61.9	2.103
1201.	3.91	34.56			27.47	73.1						
1503.	3.05	34.60			27.58	61.9						

TEMPERATURE ERROR TERM AT 200. METERS IS 0.25
SALINITY ERROR TERM AT 200. METERS IS 0.06

CROMWELL 5, STATION 6, 13- ON LAT, 157- 1W LONG, JUNE 18, 1964, 0900 G.C.T.
DRY BULB 26.1 WET BULB 22.7 WIND SPEED 21, DIR. 07 BAR. 15 WEATHER 01 VIS. 7 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.57	34.74			22.68	518.0	0.	26.57	34.74	22.68	518.0	0.000
9.	26.60	34.74			22.67	519.3	10.	26.60	34.74	22.67	519.3	0.052
30.Δ	26.60	34.74			22.67	520.1	20.	26.61	34.74	22.67	519.9	0.105
50.Δ	26.60	34.74			22.67	520.9	30.	26.60	34.74	22.67	520.1	0.157
70.	26.57	34.74			22.68	520.8	50.	26.60	34.74	22.67	520.9	0.262
93.	24.72	34.50			23.07	484.4	75.	26.19	34.68	22.76	513.6	0.392
100.Δ	24.46	34.50			23.15	477.2	100.	24.46	34.50	23.15	477.2	0.517
117.	21.00	34.60			24.21	376.2	150.	12.29	34.31	26.01	204.1	0.689
141.	13.40	34.38			25.85	219.5	200.	10.33	34.33	26.39	169.0	0.783
164.	11.57	34.24			26.10	196.0	250.	9.29	34.37	26.60	149.6	0.863
178.	11.05	34.28			26.23	184.2	300.	8.87	34.44	26.72	138.7	0.936
209.	10.09	34.34			26.44	164.1	400.	8.27	34.55	26.90	123.4	1.068
234.	9.62	34.36			26.54	155.5	500.	7.41	34.51	27.00	115.2	1.188
257.	9.17	34.38			26.63	147.3	600.	6.60	34.50	27.10	106.0	1.300
281.	8.98	34.41			26.68	142.5	700.	5.95	34.51	27.19	97.8	1.403
375.	8.46	34.55			26.87	125.9	800.	5.42	34.53	27.27	90.9	1.498
469.	7.68	34.52			26.96	118.0	1000.	4.60	34.54	27.38	81.1	1.672
564.	6.87	34.50			27.06	109.3	1200.	3.88	34.56	27.47	72.9	1.828
754.	5.65	34.52			27.24	93.7						
943.	4.82	34.54			27.35	83.6						
1133.	4.12	34.55			27.44	75.9						
1424.	3.20	34.57			27.55	65.4						

TEMPERATURE ERROR TERM AT 15C. METERS IS 0.16

ΔFROM BT DATA

Table 2.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 5, STATION 7, 11-24N LAT, 157- 0W LONG, JUNE 18, 1964, 1800 G.C.T.
DRY BULB 26.7 WET BULB 23.7 WIND SPEED 16, DIR. 08 BAR. 14 WEATHER 03 VIS. 6 CLOUD TYPE 8, COVER 6

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.93	34.64			22.49	536.1	0.	26.93	34.64	22.49	536.1	0.000
10.	26.91	34.64			22.50	535.9	10.	26.91	34.64	22.50	535.9	0.054
30.Δ	26.92	34.64			22.49	537.0	20.	26.91	34.64	22.50	536.3	0.108
50.Δ	26.93	34.64			22.49	538.1	30.	26.92	34.64	22.49	537.0	0.162
73.	26.94	34.66			22.50	537.9	50.	26.93	34.64	22.49	538.1	0.270
97.	22.62	34.66			23.81	414.2	75.	26.70	34.66	22.58	530.4	0.405
121.	16.62	34.56			25.29	273.3	100.	21.86	34.66	24.01	394.3	0.521
145.	12.49	34.26			25.94	211.0	150.	12.15	34.29	26.03	202.6	0.672
170.	11.56	34.48			26.29	178.4	200.	11.12	34.61	26.47	161.8	0.764
183.	11.24	34.52			26.38	170.0	250.	10.52	34.67	26.63	147.8	0.842
216.	11.07	34.68			26.53	156.1	300.	9.99	34.68	26.72	139.5	0.914
242.	10.60	34.67			26.61	149.2	400.	9.01	34.63	26.85	128.7	1.050
268.	10.37	34.68			26.66	145.1	500.	8.19	34.59	26.95	120.9	1.175
291.	10.09	34.68			26.71	140.9	600.	7.24	34.55	27.06	111.1	1.293
387.	9.11	34.64			26.84	129.7	700.	6.47	34.54	27.15	103.1	1.401
485.	8.34	34.60			26.93	122.4	800.	5.82	34.53	27.23	95.9	1.502
581.	7.40	34.56			27.04	112.8	1000.	4.74	34.54	27.36	83.0	1.682
777.	5.97	34.53			27.21	97.6	1200.	3.92	34.56	27.47	73.1	1.840
972.	4.86	34.54			27.35	84.4						
1167.	4.10	34.56			27.45	75.2						
1462.	3.13	34.60			27.58	62.6						

CROMWELL 5, STATION 7A, 9-55N LAT, 154- 2W LONG, JUNE 19, 1964, 1500 G.C.T.
DRY BULB 25.7 WET BULB 23.4 WIND SPEED 16, DIR. 09 BAR. 11 WEATHER 02 VIS. 7 CLOUD TYPE 4, COVER 7

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.86	34.16			22.15	568.5	0.	26.86	34.16	22.15	568.5	0.000
10.	26.85	34.16			22.16	568.6	10.	26.85	34.16	22.16	568.6	0.057
30.Δ	26.85	34.16			22.16	569.4	20.	26.93	34.14	22.11	573.0	0.115
50.	25.59	34.52			22.82	506.6	30.	26.85	34.16	22.16	569.4	0.172
59.	24.93	34.58			23.07	483.4	50.	25.59	34.52	22.82	506.6	0.281
69.	20.22	34.76			24.54	342.9	75.	19.19	34.80	24.84	314.4	0.384
79.	18.66	34.78			24.96	303.3	100.	13.88	34.34	25.73	230.4	0.453
88.	15.96	34.52			25.41	260.7	150.	11.64	34.77	26.50	158.1	0.551
98.	14.12	34.36			25.69	234.1	200.	10.81	34.74	26.63	146.8	0.627
108.	13.12	34.32			25.86	217.6	250.	10.35	34.72	26.69	141.6	0.700
147.	11.71	34.76			26.48	160.0	300.	9.90	34.70	26.75	136.6	0.770
197.	10.84	34.74			26.62	147.2	400.	9.04	34.66	26.86	127.5	0.904
247.	10.38	34.72			26.69	141.9	500.	8.17	34.62	26.97	118.8	1.028
296.	9.94	34.70			26.75	137.0	600.	7.03	34.58	27.10	106.4	1.142
395.	9.08	34.66			26.86	127.9	700.	6.14	34.56	27.21	96.6	1.244
493.	8.25	34.62			26.96	119.7	800.	5.44	34.56	27.30	88.5	1.338
592.	7.11	34.58			27.09	107.3	1000.	4.41	34.58	27.43	76.0	1.504
790.	5.50	34.56			27.29	89.2	1200.	3.69	34.60	27.52	67.5	1.649
988.	4.46	34.58			27.42	76.5						
1186.	3.78	34.60			27.51	68.4						
1485.	3.04	34.62			27.60	60.1						

TEMPERATURE ERROR TERM AT 75. METERS IS 0.19

CROMWELL 5, STATION 8, 11-30N LAT, 154- 0W LONG, JUNE 20, 1964, 0100 G.C.T.
DRY BULB 26.4 WET BULB 24.1 WIND SPEED 18, DIR. 06 BAR. 11 WEATHER 50 VIS. 7 CLOUD TYPE 8, COVER 7

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.71	34.58			22.52	533.7	0.	26.71	34.58	22.52	533.7	0.000
10.Δ	26.70	34.58			22.52	533.8	10.	26.70	34.58	22.52	533.8	0.054
30.Δ	26.64	34.59			22.55	532.1	20.	26.67	34.58	22.53	533.1	0.108
50.Δ	26.58	34.60			22.57	530.4	30.	26.64	34.59	22.55	532.1	0.161
75.Δ	26.46	34.60			22.61	527.8	50.	26.58	34.60	22.57	530.4	0.268
80.	25.80	34.62			22.83	506.8	75.	26.46	34.60	22.61	527.8	0.401
91.	22.00	34.73			24.03	392.2	100.	20.95	34.81	24.39	358.8	0.513
101.	20.89	34.82			24.41	356.9	150.	15.16	34.46	25.54	249.7	0.666
110.	20.04	34.84			24.65	334.0	200.	13.14	34.72	26.17	191.1	0.778
120.	19.01	34.81			24.89	311.0	250.	11.62	34.72	26.46	163.8	0.867
130.	17.82	34.76			25.15	286.6	300.	10.41	34.62	26.60	150.9	0.946
140.	16.65	34.66			25.35	267.3	400.	8.95	34.60	26.83	130.3	1.088
150.	15.16	34.46			25.54	249.7	500.	7.71	34.54	26.98	117.5	1.213
200.	13.14	34.72			26.17	191.1	600.	6.86	34.52	27.08	108.2	1.327
250.	11.62	34.72			26.46	163.8	700.	6.06	34.52	27.19	98.5	1.432
300.	10.41	34.62			26.60	150.9	800.	5.36	34.53	27.28	89.8	1.527
399.	8.96	34.60			26.83	130.5	1000.	4.44	34.55	27.40	78.7	1.697
500.	7.71	34.54			26.98	117.5	1200.	3.64	34.58	27.51	68.4	1.846
600.	6.86	34.52			27.08	108.2	1500.	2.85	34.60	27.60	59.4	2.041
799.	5.37	34.53			27.28	89.8						
1001.	4.44	34.55			27.40	78.6						
1201.	3.64	34.58			27.51	68.3						
1500.	2.85	34.60			27.60	59.4						

ΔFROM BT DATA

Table 2.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 5, STATION 9, 13- 1N LAT, 154- 0W LONG, JUNE 20, 1964, 1000 G.C.T.
DRY BULB 26.2 WET BULB 22.8 WIND SPEED 18, DIR. 05 BAR. 14 WEATHER 50 VIS. 7 CLOUD TYPE 6, COVER 6

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.42	34.64			22.65	520.7	0.	26.42	34.64	22.65	520.7	0.000
10.Δ	26.41	34.64			22.66	520.8	10.	26.41	34.64	22.66	520.8	0.052
30.Δ	26.36	34.64			22.67	520.1	20.	26.39	34.64	22.66	520.5	0.105
50.Δ	26.30	34.64			22.69	519.1	30.	26.36	34.64	22.67	520.1	0.157
75.Δ	24.00	34.64			23.39	453.0	50.	26.30	34.64	22.69	519.1	0.262
80.	23.48	34.66			23.56	437.2	73.	24.00	34.64	23.39	453.0	0.384
90.	23.16	34.84			23.79	415.7	100.	22.02	34.94	24.19	377.9	0.489
100.	22.02	34.94			24.19	377.9	150.	18.01	34.85	25.17	285.2	0.656
110.	21.07	35.06			24.54	344.5	200.	12.18	34.27	26.01	205.8	0.780
120.	20.49	35.09			24.72	327.7	250.	10.16	34.40	26.48	161.4	0.872
130.	19.68	35.02			24.88	312.7	300.	9.83	34.57	26.67	144.7	0.950
140.	18.78	34.92			25.03	298.1	400.	8.52	34.56	26.87	126.5	1.087
150.	18.01	34.85			25.17	285.2	500.	7.63	34.56	27.00	114.9	1.208
200.	12.18	34.27			26.01	205.8	600.	6.67	34.52	27.11	105.5	1.320
249.	10.17	34.40			26.47	161.9	700.	5.97	34.52	27.20	97.2	1.422
299.	9.84	34.57			26.66	145.0	800.	5.43	34.54	27.28	89.9	1.517
400.	8.52	34.56			26.87	126.5	1000.	4.58	34.57	27.40	78.9	1.688
499.	7.64	34.56			27.00	115.0	1200.	3.87	34.59	27.49	70.6	1.839
600.	6.67	34.52			27.11	105.5	1500.	3.04	34.62	27.60	60.2	2.038
798.	5.44	34.54			27.28	90.0						
998.	4.59	34.57			27.40	79.0						
1199.	3.88	34.58			27.49	71.2						
1500.	3.04	34.62			27.60	60.2						

CROMWELL 5, STATION 10, 14-30N LAT, 154- 0W LONG, JUNE 20, 1964, 1900 G.C.T.
DRY BULB 25.7 WET BULB 22.8 WIND SPEED 14, DIR. 04 BAR. 14 WEATHER 03 VIS. 7 CLOUD TYPE 8, COVER 4

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.48	34.54			22.87	499.9	0.	25.48	34.54	22.87	499.9	0.000
10.Δ	25.46	34.54			22.87	499.8	10.	25.46	34.54	22.87	499.8	0.050
30.Δ	25.47	34.54			22.87	500.8	20.	25.46	34.54	22.87	500.2	0.101
50.	25.49	34.54			22.87	502.2	30.	25.47	34.54	22.87	500.8	0.151
75.	22.83	34.70			23.78	416.2	50.	25.49	34.54	22.87	502.2	0.252
100.	20.09	34.75			24.57	341.4	75.	22.83	34.70	23.78	416.2	0.368
124.	18.33	34.81			25.06	294.8	100.	20.09	34.75	24.57	341.4	0.463
148.	15.50	34.57			25.55	248.9	150.	15.38	34.56	25.57	247.2	0.612
173.	14.22	34.44			25.73	232.4	200.	12.18	34.29	26.02	204.3	0.725
188.	13.08	34.33			25.88	218.2	250.	10.34	34.44	26.48	161.8	0.818
220.	10.99	34.30			26.25	182.7	300.	9.95	34.62	26.69	142.8	0.895
246.	10.41	34.42			26.45	164.4	400.	8.63	34.60	26.88	125.6	1.030
272.	10.05	34.54			26.60	150.1	500.	7.77	34.55	26.97	117.8	1.153
296.	9.99	34.62			26.68	143.7	600.	6.90	34.53	27.08	108.1	1.267
394.	8.69	34.60			26.87	126.1	700.	6.16	34.52	27.17	99.8	1.372
493.	7.83	34.55			26.97	118.4	800.	5.52	34.52	27.25	92.6	1.469
592.	6.96	34.53			27.08	108.8	1000.	4.52	34.54	27.39	80.2	1.644
789.	5.59	34.52			27.25	93.4	1200.	3.81	34.56	27.48	71.6	1.798
986.	4.57	34.54			27.38	80.9						
1184.	3.92	34.56			27.47	73.1						
1481.	3.11	34.60			27.58	62.4						

CROMWELL 5, STATION 11, 16- 4N LAT, 154- 1W LONG, JUNE 21, 1964, 0600 G.C.T.
DRY BULB 25.3 WET BULB 22.8 WIND SPEED 15, DIR. 02 BAR. 15 WEATHER 02 VIS. 7 CLOUD TYPE 4, COVER 6

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.11	34.76			22.84	502.7	0.	26.11	34.76	22.84	502.7	0.000
10.Δ	26.01	34.78			22.89	498.7	10.	26.01	34.78	22.89	498.7	0.050
30.Δ	26.03	34.77			22.87	500.9	20.	26.00	34.78	22.89	499.0	0.101
50.Δ	26.04	34.77			22.87	502.0	30.	26.03	34.77	22.87	500.9	0.151
75.	26.06	34.76			22.86	504.3	50.	26.04	34.77	22.87	502.0	0.252
100.	23.25	34.70			23.65	428.7	75.	26.06	34.76	22.86	504.3	0.379
124.	21.04	34.82			24.37	361.6	100.	23.25	34.70	23.65	428.7	0.496
149.	17.93	34.74			25.11	291.2	150.	17.77	34.72	25.13	288.8	0.677
173.	14.64	34.38			25.59	245.4	200.	12.84	34.30	25.90	216.1	0.804
188.	13.75	34.37			25.77	228.4	250.	10.18	34.21	26.32	176.4	0.903
220.	11.39	34.18			26.09	198.5	300.	9.40	34.37	26.58	152.6	0.986
247.	10.27	34.20			26.30	178.3	400.	8.38	34.50	26.85	128.6	1.128
272.	9.68	34.26			26.45	164.6	500.	7.44	34.51	26.99	115.8	1.251
297.	9.43	34.36			26.57	153.7	600.	6.73	34.50	27.08	107.9	1.364
394.	8.44	34.50			26.84	129.6	700.	6.06	34.50	27.17	100.2	1.470
495.	7.48	34.51			26.99	116.2	800.	5.52	34.50	27.24	94.0	1.568
593.	6.78	34.50			27.08	108.5	1000.	4.96	34.52	27.32	87.5	1.751
793.	5.54	34.50			27.24	94.2	1200.	4.13	34.55	27.44	76.4	1.917
993.	5.00	34.52			27.32	87.9						
1191.	3.98	34.56			27.46	73.9						
1489.	3.17	34.59			27.56	64.0						

TEMPERATURE ERROR TERM AT 1200. METERS IS 0.13

ΔFROM BT DATA

Table 2.--Continued

CROMWELL 5, STATION 12, 17-31N LAT, 154- 0W LONG, JUNE 21, 1964, 1500 G.C.T.
DRY BULB 24.4 WET BULB 20.7 WIND SPEED 15, DIR. 02 BAR. 15 WEATHER 01 VIS. 7 CLOUD TYPE , COVER

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.73	34.70			22.91	495.8	0.	25.73	34.70	22.91	495.8	0.000
10.Δ	25.77	34.69			22.89	498.1	10.	25.77	34.69	22.89	498.1	0.050
30.Δ	25.70	34.69			22.91	496.8	20.	25.81	34.69	22.88	499.7	0.100
50.Δ	24.68	34.69			23.23	467.9	30.	25.70	34.69	22.91	496.8	0.150
74.	25.03	34.60			23.05	485.4	50.	24.68	34.69	23.23	467.9	0.248
98.	23.31	34.70			23.64	430.3	75.	24.97	34.60	23.07	483.7	0.368
123.	22.23	34.98			24.16	381.5	100.	23.21	34.72	23.68	426.0	0.482
149.	21.27	35.14			24.55	345.4	150.	21.19	35.14	24.57	343.6	0.676
173.	19.26	34.98			24.96	306.7	200.	17.65	34.77	25.20	283.8	0.834
188.	18.48	34.89			25.09	294.7	250.	12.10	34.20	25.97	211.0	0.959
220.	15.80	34.54			25.46	259.7	300.	10.16	34.32	26.41	168.9	1.055
247.	12.27	34.20			25.94	213.8	400.	8.41	34.43	26.79	134.4	1.208
272.	11.32	34.25			26.15	193.4	500.	7.17	34.44	26.98	116.9	1.335
296.	10.28	34.31			26.39	171.4	600.	6.47	34.46	27.09	107.1	1.448
395.	8.49	34.43			26.77	135.6	700.	5.82	34.48	27.19	98.2	1.551
494.	7.22	34.44			26.97	117.6	800.	5.26	34.50	27.27	90.5	1.647
594.	6.51	34.46			27.08	107.7	1000.	4.44	34.54	27.40	79.3	1.819
792.	5.30	34.50			27.27	91.1	1200.	3.79	34.57	27.48	71.1	1.971
992.	4.47	34.54			27.39	79.7						
1190.	3.85	34.56			27.47	72.3						
1489.	3.03	34.60			27.59	61.5						

CROMWELL 5, STATION 13, 18-58N LAT, 153-58W LONG, JUNE 21, 1964, 2300 G.C.T.
DRY BULB 25.2 WET BULB 22.3 WIND SPEED 16, DIR. 04 BAR. 17 WEATHER 02 VIS. 8 CLOUD TYPE 8, COVER 5

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.41	34.65			22.97	490.0	0.	25.41	34.65	22.97	490.0	0.000
9.Δ	25.35	34.64			22.98	489.3	10.	25.35	34.64	22.98	489.4	0.049
30.Δ	25.20	34.64			23.03	485.7	20.	25.30	34.63	22.99	489.1	0.099
48.	24.70	34.76			23.27	463.3	30.	25.20	34.64	23.03	485.7	0.148
73.	23.55	34.83			23.67	426.6	50.	24.61	34.77	23.30	460.3	0.243
96.	23.00	34.95			23.92	403.6	75.	23.50	34.84	23.69	424.5	0.354
119.	21.97	34.93			24.19	378.0	100.	22.83	34.94	23.96	399.5	0.458
144.	21.18	35.15			24.58	342.1	150.	20.82	35.13	24.66	334.7	0.643
167.	19.84	35.02			24.84	318.0	200.	18.51	34.91	25.09	294.4	0.802
181.	19.45	35.00			24.92	310.2	250.	14.60	34.41	25.62	244.6	0.938
212.	17.75	34.82			25.21	283.3	300.	11.40	34.23	26.13	196.6	1.049
238.	15.89	34.56			25.45	260.8	400.	8.48	34.23	26.62	150.4	1.224
259.	13.65	34.31			25.75	232.7	500.	6.67	34.23	26.88	125.6	1.363
282.	12.21	34.25			25.99	209.9	600.	5.82	34.31	27.05	109.3	1.482
374.	9.15	34.24			26.52	159.5	700.	5.34	34.39	27.18	98.3	1.587
467.	7.12	34.21			26.80	132.8	800.	4.90	34.46	27.28	89.3	1.682
560.	6.08	34.28			27.00	114.7	1000.	4.04	34.51	27.42	76.4	1.849
749.	5.18	34.43			27.22	94.2	1200.	3.49	34.55	27.50	68.7	1.996
934.	4.23	34.50			27.39	79.1						
1120.	3.79	34.53			27.46	73.2						
1404.	3.14	34.57			27.55	64.5						

CROMWELL 5, STATION 14, 20-30N LAT, 153-57W LONG, JUNE 22, 1964, 1000 G.C.T.
DRY BULB 24.0 WET BULB 21.6 WIND SPEED 15, DIR. 04 BAR. 19 WEATHER 02 VIS. 7 CLOUD TYPE 8, COVER 8

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.00	34.84			23.24	464.3	0.	25.00	34.84	23.24	464.3	0.000
10.Δ	24.97	34.84			23.25	463.9	10.	24.97	34.84	23.25	463.9	0.047
30.Δ	24.66	34.87			23.37	453.5	20.	24.89	34.85	23.28	461.5	0.093
51.	23.44	35.02			23.84	409.0	30.	24.66	34.87	23.37	453.5	0.139
76.	23.07	35.04			23.96	398.3	50.	23.50	35.01	23.82	411.2	0.227
100.	22.64	35.09			24.13	383.8	75.	23.07	35.04	23.96	398.3	0.328
125.	22.49	35.15			24.21	376.4	100.	22.64	35.09	24.13	383.8	0.427
150.	21.64	35.16			24.46	353.7	150.	21.64	35.16	24.46	353.7	0.613
174.	20.79	35.17			24.70	331.6	200.	19.40	35.01	24.94	309.1	0.780
189.	20.07	35.08			24.82	320.2	250.	15.85	34.57	25.47	259.4	0.923
224.	17.74	34.82			25.22	283.4	300.	11.91	34.20	26.00	208.4	1.041
249.	15.93	34.58			25.46	260.5	400.	8.23	34.18	26.62	150.0	1.222
276.	13.67	34.34			25.76	231.4	500.	7.64	34.38	26.86	128.3	1.362
300.	11.91	34.20			26.00	208.4	600.	6.47	34.43	27.06	109.4	1.482
399.	8.24	34.18			26.61	150.3	700.	5.84	34.47	27.17	99.4	1.588
500.	7.64	34.38			26.86	128.3	800.	5.46	34.50	27.25	93.3	1.685
601.	6.46	34.43			27.06	109.3	1000.	4.60	34.53	27.37	82.1	1.863
803.	5.45	34.50			27.25	93.1	1200.	3.98	34.56	27.46	74.0	2.021
1004.	4.58	34.53			27.37	81.9	1500.	3.13	34.60	27.58	62.9	2.229
1204.	3.97	34.56			27.46	73.9						
1505.	3.12	34.60			27.58	62.7						

ΔFROM BT DATA

Table 2.--Continued

CROMWELL 5, STATION 15, 21-58N LAT, 153-59W LONG, JUNE 22, 1964, 1900 G.C.T.
DRY BULB 24.6 WET BULB 21.7 WIND SPEED 18, DIR. 05 BAR. 19 WEATHER 03 VIS. 7 CLOUD TYPE 4, COVER 5

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.59	34.86			23.38	451.1	0.	24.59	34.86	23.38	451.1	0.000
10.	24.57	34.88			23.40	449.4	10.	24.57	34.88	23.40	449.4	0.045
30.Δ	24.46	34.88			23.43	447.1	20.	24.62	34.86	23.38	452.4	0.091
49.	22.91	35.16			24.10	384.2	30.	24.46	34.88	23.43	447.1	0.136
74.	22.60	35.18			24.20	375.2	50.	22.88	35.16	24.11	383.1	0.220
99.	22.18	35.22			24.35	361.9	75.	22.59	35.18	24.21	374.8	0.315
124.	21.60	35.24			24.53	345.9	100.	22.16	35.22	24.36	361.4	0.408
149.	20.64	35.20			24.76	324.7	150.	20.62	35.20	24.77	324.2	0.581
174.	19.97	35.15			24.90	312.1	200.	18.65	34.95	25.09	295.3	0.737
189.	19.18	35.02			25.01	302.4	250.	15.43	34.55	25.55	251.9	0.875
223.	17.42	34.79			25.27	278.1	300.	12.39	34.26	25.96	213.1	0.992
249.	15.51	34.56			25.54	252.8	400.	9.23	34.12	26.41	170.3	1.185
274.	13.57	34.32			25.77	230.8	500.	6.94	34.11	26.75	138.1	1.341
299.	12.43	34.26			25.95	213.7	600.	5.42	34.17	26.99	114.6	1.469
397.	9.31	34.12			26.40	171.4	700.	4.69	34.27	27.15	99.8	1.577
498.	6.98	34.11			26.74	138.7	800.	4.37	34.36	27.26	89.8	1.673
598.	5.44	34.17			26.99	115.0	1000.	3.91	34.48	27.40	77.3	1.842
798.	4.38	34.36			27.26	90.0	1200.	3.47	34.54	27.49	69.3	1.990
997.	3.92	34.48			27.40	77.4						
1197.	3.48	34.52			27.48	70.8						
1497.	2.83	34.58			27.59	60.6						

CROMWELL 5, STATION 16, 23-32N LAT, 153-58W LONG, JUNE 23, 1964, 0400 G.C.T.
DRY BULB 24.0 WET BULB 21.0 WIND SPEED 16, DIR. 03 BAR. 17 WEATHER 02 VIS. 8 CLOUD TYPE 8, COVER 3

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.44	35.01			23.54	436.0	0.	24.44	35.01	23.54	436.0	0.000
10.	24.44	35.04			23.56	434.2	10.	24.44	35.04	23.56	434.2	0.044
30.Δ	24.28	35.05			23.62	429.7	20.	24.43	35.05	23.57	433.7	0.088
50.	23.21	35.08			23.95	398.3	30.	24.28	35.05	23.62	429.7	0.131
74.	22.74	35.17			24.16	379.8	50.	23.21	35.08	23.95	398.3	0.214
100.	22.07	35.24			24.40	357.6	75.	22.72	35.17	24.17	379.0	0.312
125.	21.14	35.20			24.63	336.8	100.	22.07	35.24	24.40	357.6	0.405
150.	20.14	35.12			24.84	317.7	150.	20.14	35.12	24.84	317.7	0.575
174.	18.83	34.98			25.07	296.2	200.	17.78	34.85	25.23	281.1	0.726
189.	18.38	34.92			25.14	290.2	250.	15.05	34.54	25.63	244.5	0.859
223.	16.36	34.70			25.45	260.5	300.	12.02	34.23	26.01	208.3	0.973
250.	15.05	34.54			25.63	244.5	400.	9.01	34.09	26.42	168.9	1.163
276.	12.90	34.30			25.89	219.2	500.	6.60	34.06	26.75	137.2	1.318
299.	12.05	34.23			26.00	208.8	600.	5.35	34.12	26.96	117.9	1.446
400.	9.01	34.09			26.42	168.9	700.	4.67	34.25	27.14	101.0	1.557
502.	6.56	34.06			26.76	136.6	800.	4.28	34.38	27.29	87.2	1.652
604.	5.32	34.12			26.96	117.2	1000.	3.77	34.51	27.44	73.5	1.815
813.	4.25	34.40			27.30	85.6	1200.	3.30	34.57	27.54	64.9	1.955
1004.	3.76	34.51			27.44	73.3						
1190.	3.32	34.56			27.53	65.9						
1474.	2.71	34.60			27.61	57.6						

CROMWELL 5, STATION 17, 23-28N LAT, 150-58W LONG, JUNE 23, 1964, 2300 G.C.T.
DRY BULB 22.8 WET BULB 20.5 WIND SPEED 17, DIR. 09 BAR. 17 WEATHER 52 VIS. 7 CLOUD TYPE 9, COVER 6

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	24.14	35.12			23.71	419.5	0.	24.14	35.12	23.71	419.5	0.000
9.	24.10	35.12			23.72	418.7	10.	24.12	35.12	23.72	419.5	0.042
30.Δ	24.04	35.12			23.74	417.8	20.	24.21	35.11	23.68	422.8	0.085
44.	22.74	35.20			24.18	376.5	30.	24.04	35.12	23.74	417.8	0.127
68.	21.98	35.27			24.45	351.8	50.	22.47	35.22	24.28	367.5	0.206
90.	21.23	35.27			24.66	332.8	75.	21.73	35.27	24.52	345.1	0.296
111.	20.76	35.26			24.78	322.1	100.	21.03	35.28	24.72	327.5	0.381
133.	19.66	35.09			24.94	307.2	150.	18.83	34.98	25.06	295.6	0.538
156.	18.54	34.94			25.11	291.5	200.	16.64	34.71	25.40	265.1	0.679
169.	17.88	34.86			25.21	282.0	250.	13.39	34.33	25.81	226.0	0.803
199.	16.69	34.72			25.39	265.7	300.	11.42	34.18	26.08	200.8	0.910
227.	15.10	34.53			25.61	245.6	400.	8.83	34.06	26.43	168.2	1.096
246.	13.61	34.35			25.79	228.6	500.	6.74	34.04	26.72	140.4	1.252
269.	12.54	34.26			25.93	215.0	600.	5.36	34.13	26.97	116.8	1.382
359.	9.79	34.10			26.31	180.0	700.	4.76	34.27	27.15	99.9	1.492
450.	7.80	34.04			26.57	154.9	800.	4.38	34.38	27.27	88.6	1.587
540.	6.00	34.06			26.83	129.6	1000.	3.83	34.49	27.42	75.6	1.753
723.	4.70	34.31			27.18	96.8	1200.	3.37	34.55	27.52	67.1	1.898
909.	4.06	34.45			27.36	80.5						
1095.	3.63	34.52			27.46	71.8						
1383.	3.04	34.56			27.55	63.9						

ΔFROM BT DATA

Table 2.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 5, STATION 18, 22- 2N LAT, 150-59W LONG, JUNE 24, 1964, 0800 G.C.T.
DRY BULB 23.0 WET BULB 20.1 WIND SPEED 14, DIR. 06 BAR. 15 WEATHER 03 VIS. 7 CLOUD TYPE 8, COVER 6

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.41	34.78			23.37	451.7	0.	24.41	34.78	23.37	451.7	0.000
10.	24.40	34.79			23.38	451.1	10.	24.40	34.79	23.38	451.1	0.045
52.	23.47	34.90			23.74	418.6	20.	24.30	34.80	23.42	448.1	0.091
77.	22.30	35.10			24.23	373.0	30.	24.13	34.82	23.49	442.1	0.136
103.	21.96	35.19			24.39	358.4	50.	23.55	34.89	23.71	421.3	0.223
128.	21.24	35.14			24.55	343.8	75.	22.39	35.08	24.19	376.4	0.323
154.	19.97	35.06			24.83	317.9	100.	21.99	35.19	24.38	359.2	0.416
179.	19.07	35.02			25.04	299.3	150.	20.17	35.07	24.79	322.0	0.587
194.	18.46	34.92			25.12	292.3	200.	18.21	34.89	25.15	288.8	0.741
229.	16.64	34.70			25.39	267.0	250.	14.94	34.48	25.61	246.3	0.876
256.	14.44	34.42			25.66	240.6	300.	11.97	34.17	25.97	211.4	0.992
281.	12.81	34.24			25.86	221.9	400.	8.80	34.09	26.46	165.8	1.182
306.	11.74	34.16			26.01	208.3	500.	6.55	34.08	26.77	135.3	1.334
408.	8.61	34.09			26.49	162.7	600.	5.44	34.20	27.01	112.8	1.459
511.	6.36	34.08			26.80	132.6	700.	5.00	34.33	27.17	98.8	1.566
612.	5.37	34.22			27.04	110.6	800.	4.79	34.43	27.27	90.0	1.661
815.	4.78	34.44			27.28	89.1	1000.	4.21	34.50	27.39	79.6	1.833
1018.	4.16	34.50			27.39	79.0	1200.	3.65	34.54	27.47	71.7	1.986
1220.	3.60	34.54			27.48	70.9	1500.	2.88	34.59	27.59	60.7	2.188
1522.	2.83	34.59			27.60	60.0						

CROMWELL 5, STATION 19, 20-32N LAT, 150-56W LONG, JUNE 24, 1964, 1700 G.C.T.
DRY BULB 24.2 WET BULB 21.3 WIND SPEED 15, DIR. 09 BAR. 15 WEATHER 01 VIS. 7 CLOUD TYPE 8, COVER 6

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.35	34.66			23.30	458.6	0.	24.35	34.66	23.30	458.6	0.000
10.	24.33	34.66			23.31	458.4	10.	24.33	34.66	23.31	458.4	0.046
30.Δ	24.28	34.68			23.34	456.4	20.	24.30	34.67	23.32	457.3	0.092
51.	24.29	34.67			23.33	458.2	30.	24.28	34.68	23.34	456.4	0.138
75.	23.60	34.68			23.54	438.9	50.	24.30	34.67	23.33	458.3	0.230
100.	22.31	34.67			23.90	405.2	75.	23.60	34.68	23.54	438.9	0.343
125.	21.92	34.90			24.18	379.0	100.	22.31	34.67	23.90	405.2	0.450
150.	20.51	34.88			24.55	344.5	150.	20.51	34.88	24.55	344.5	0.639
174.	19.00	34.86			24.93	309.0	200.	17.71	34.77	25.19	285.5	0.797
188.	18.53	34.86			25.05	298.1	250.	13.64	34.30	25.74	233.1	0.928
220.	16.02	34.56			25.42	263.1	300.	11.15	34.16	26.12	197.3	1.037
246.	13.90	34.32			25.70	236.6	400.	7.94	34.17	26.65	146.7	1.210
271.	12.45	34.22			25.92	216.3	500.	6.77	34.24	26.87	126.3	1.348
295.	11.37	34.17			26.08	200.7	600.	5.40	34.24	27.05	109.1	1.467
391.	8.08	34.16			26.62	149.2	700.	5.03	34.35	27.17	98.0	1.571
488.	6.97	34.24			26.85	128.8	800.	4.93	34.45	27.27	90.0	1.667
586.	5.48	34.23			27.03	110.9	1000.	4.14	34.51	27.40	78.2	1.837
778.	5.02	34.44			27.25	91.7	1200.	3.55	34.54	27.49	70.2	1.987
973.	4.23	34.50			27.39	79.4						
1168.	3.64	34.53			27.47	71.7						
1463.	3.03	34.56			27.55	64.3						

TEMPERATURE ERROR TERM AT 700. METERS IS 0.14

CROMWELL 5, STATION 20, 19- 1N LAT, 151- 2W LONG, JUNE 25, 1964, 0200 G.C.T.
DRY BULB 24.8 WET BULB 21.6 WIND SPEED 15, DIR. 11 BAR. 13 WEATHER 02 VIS. 7 CLOUD TYPE 6, COVER 7

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.93	34.76			23.20	468.1	0.	24.93	34.76	23.20	468.1	0.000
8.	24.90	34.76			23.21	467.5	10.	24.93	34.75	23.20	468.9	0.047
30.Δ	24.78	34.77			23.26	464.2	20.	24.96	34.74	23.18	470.9	0.095
45.	23.56	34.96			23.76	416.5	30.	24.78	34.77	23.26	464.2	0.142
70.	22.81	35.08			24.07	388.0	50.	23.33	35.00	23.86	407.6	0.229
93.	22.43	35.11			24.20	376.4	75.	22.73	35.09	24.10	385.3	0.329
115.	21.69	35.12			24.42	356.7	100.	22.23	35.12	24.26	370.8	0.425
139.	20.61	35.10			24.69	330.8	150.	20.04	35.07	24.82	318.9	0.598
162.	19.41	35.02			24.95	307.1	200.	17.10	34.72	25.30	274.9	0.748
175.	18.74	34.94			25.06	296.9	250.	13.20	34.25	25.79	227.8	0.875
208.	16.49	34.64			25.38	267.3	300.	9.85	34.10	26.30	179.5	0.977
233.	14.37	34.36			25.63	242.9	400.	7.99	34.22	26.68	143.9	1.141
257.	12.71	34.22			25.87	220.9	500.	6.40	34.29	26.96	117.1	1.272
279.	10.78	34.12			26.15	193.6	600.	5.70	34.39	27.13	102.3	1.383
374.	8.57	34.20			26.58	153.4	700.	5.13	34.44	27.24	92.1	1.481
468.	6.73	34.26			26.89	123.7	800.	4.69	34.48	27.32	85.3	1.571
563.	5.95	34.36			27.07	107.1	1000.	4.08	34.53	27.42	75.8	1.734
752.	4.89	34.46			27.28	88.3	1200.	3.56	34.56	27.51	68.5	1.880
941.	4.23	34.51			27.39	78.4						
1130.	3.78	34.56			27.48	70.9						
1420.	3.07	34.58			27.57	63.0						

TEMPERATURE ERROR TERM AT 300. METERS IS 0.28

ΔFROM BT DATA

Table 2.--Continued

CROMWELL 5, STATION 21, 17-31N LAT, 150-57W LONG, JUNE 25, 1964, 1200 G.C.T.
DRY BULB 24.5 WET BULB 21.8 WIND SPEED 17, DIR. 09 BAR. 14 WEATHER 01 VIS. 7 CLOUD TYPE 8, COVER 3

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.63	34.64			23.20	468.1	0.	24.63	34.64	23.20	468.1	0.000
10.Δ	24.65	34.64			23.20	469.0	10.	24.65	34.64	23.20	469.0	0.047
30.Δ	24.64	34.64			23.20	469.5	20.	24.65	34.64	23.20	469.4	0.094
50.Δ	24.64	34.64			23.20	470.3	30.	24.64	34.64	23.20	469.5	0.142
78.	23.87	34.67			23.45	447.3	50.	24.64	34.64	23.20	470.3	0.236
102.	22.99	34.90			23.88	407.2	75.	23.98	34.66	23.41	451.1	0.352
127.	22.51	35.07			24.15	382.7	100.	23.06	34.88	23.84	410.6	0.461
152.	20.67	34.92			24.54	345.8	150.	20.84	34.93	24.51	348.9	0.652
177.	19.20	34.94			24.94	308.2	200.	16.54	34.56	25.30	274.2	0.809
192.	17.55	34.68			25.16	288.1	250.	11.26	34.20	26.13	195.4	0.928
225.	13.50	34.28			25.75	231.0	300.	9.34	34.15	26.42	168.0	1.019
252.	11.12	34.20			26.15	193.0	400.	7.82	34.25	26.73	138.7	1.174
278.	10.12	34.21			26.33	175.7	500.	6.33	34.26	26.95	118.6	1.304
302.	9.27	34.14			26.42	167.4	600.	5.62	34.31	27.08	106.6	1.418
403.	7.80	34.26			26.74	137.9	700.	5.30	34.40	27.18	97.5	1.521
505.	6.26	34.26			26.96	117.8	800.	5.09	34.47	27.27	90.4	1.616
607.	5.59	34.32			27.09	105.9	1000.	4.42	34.52	27.38	80.6	1.789
809.	5.08	34.48			27.28	89.9	1200.	3.79	34.54	27.46	73.1	1.945
1012.	4.38	34.52			27.39	80.2	1500.	3.02	34.58	27.57	63.1	2.152
1212.	3.75	34.54			27.47	72.7						
1515.	2.99	34.58			27.57	62.7						

CROMWELL 5, STATION 22, 15-59N LAT, 151- 3W LONG, JUNE 25, 1964, 2100 G.C.T.
DRY BULB 25.8 WET BULB 22.8 WIND SPEED 22, DIR. 07 BAR. 14 WEATHER 02 VIS. 7 CLOUD TYPE 4, COVER 5

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.14	34.70			23.09	478.5	0.	25.14	34.70	23.09	478.5	0.000
10.	25.12	34.70			23.10	478.3	10.	25.12	34.70	23.10	478.3	0.048
30.Δ	25.02	34.70			23.13	476.2	20.	25.19	34.70	23.08	480.9	0.096
48.	23.38	34.74			23.65	427.4	30.	25.02	34.70	23.13	476.2	0.145
73.	22.46	35.03			24.13	382.2	50.	23.27	34.76	23.69	423.0	0.235
98.	21.76	35.12			24.40	357.9	75.	22.40	35.04	24.16	379.8	0.336
121.	21.35	35.22			24.58	340.7	100.	21.73	35.13	24.41	356.4	0.429
147.	19.98	35.08			24.85	316.5	150.	19.81	35.06	24.88	313.5	0.598
169.	18.20	34.88			25.15	288.1	200.	13.86	34.34	25.72	233.5	0.736
183.	16.04	34.58			25.43	260.9	250.	10.67	34.26	26.28	180.6	0.840
217.	12.23	34.21			25.95	211.6	300.	10.06	34.48	26.56	155.1	0.925
243.	10.93	34.23			26.21	187.3	400.	8.96	34.54	26.78	135.1	1.071
268.	10.21	34.36			26.44	165.9	500.	7.60	34.49	26.95	119.9	1.200
291.	10.12	34.46			26.53	157.6	600.	6.59	34.47	27.08	108.1	1.315
389.	9.11	34.54			26.76	137.1	700.	5.88	34.48	27.18	99.3	1.420
487.	7.76	34.49			26.93	121.7	800.	5.32	34.49	27.26	91.9	1.517
584.	6.72	34.47			27.06	109.7	1000.	4.35	34.53	27.39	79.3	1.690
778.	5.45	34.49			27.24	93.6	1200.	3.68	34.56	27.49	70.4	1.841
975.	4.44	34.52			27.38	80.6						
1170.	3.83	34.56			27.48	71.9						
1468.	3.11	34.59			27.57	63.1						

CROMWELL 5, STATION 23, 14-28N LAT, 151- 3W LONG, JUNE 26, 1964, 0600 G.C.T.
DRY BULB 25.6 WET BULB 22.8 WIND SPEED 21, DIR. 07 BAR. 13 WEATHER 01 VIS. 7 CLOUD TYPE 3, COVER 3

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.29	34.61			22.98	489.3	0.	25.29	34.61	22.98	489.3	0.000
8.	25.27	34.60			22.98	489.8	10.	25.31	34.60	22.96	491.4	0.049
30.Δ	25.20	34.60			23.00	488.6	20.	25.37	34.59	22.94	494.2	0.099
47.	23.58	34.70			23.56	435.8	30.	25.20	34.60	23.00	488.6	0.149
73.	22.53	35.00			24.09	386.3	50.	23.40	34.74	23.64	428.4	0.241
98.	21.97	35.07			24.30	367.1	75.	22.49	35.01	24.11	384.6	0.343
123.	20.84	35.16			24.68	331.8	100.	21.91	35.08	24.33	364.6	0.438
148.	18.78	34.94			25.05	297.0	150.	18.63	34.92	25.07	294.8	0.604
172.	16.54	34.64			25.37	267.3	200.	13.01	34.29	25.86	220.4	0.734
186.	14.48	34.38			25.63	242.4	250.	11.03	34.51	26.41	168.4	0.832
220.	11.72	34.32			26.13	194.2	300.	9.80	34.52	26.63	148.1	0.912
246.	11.14	34.50			26.38	171.2	400.	8.43	34.52	26.85	128.2	1.051
271.	10.45	34.54			26.53	156.8	500.	7.44	34.52	27.00	115.1	1.174
295.	9.89	34.52			26.62	149.4	600.	6.60	34.52	27.12	104.6	1.285
395.	8.49	34.52			26.84	128.9	700.	5.90	34.52	27.21	96.2	1.386
495.	7.49	34.52			26.99	115.7	800.	5.33	34.53	27.29	89.2	1.480
594.	6.65	34.52			27.11	105.2	1000.	4.47	34.56	27.41	78.3	1.649
791.	5.37	34.53			27.28	89.7	1200.	3.75	34.57	27.49	70.2	1.800
988.	4.52	34.56			27.40	78.8						
1186.	3.80	34.56			27.48	71.6						
1482.	2.98	34.61			27.60	60.1						

ΔFROM BT DATA

Table 2.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 5, STATION 24, 13- 0N LAT, 150-57W LONG, JUNE 26, 1964, 1500 G.C.T.
DRY BULB 25.3 WET BULB 22.6 WIND SPEED 22, DIR. 07 BAR. 11 WEATHER 01 VIS. 7 CLOUD TYPE 8, COVER 2

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.29	34.78			22.80	506.7	0.	26.29	34.78	22.80	506.7	0.000
8.Δ	26.31	34.78			22.79	507.6	10.	26.31	34.78	22.79	507.7	0.051
30.Δ	26.30	34.78			22.80	508.2	20.	26.31	34.78	22.79	508.2	0.102
50.	26.26	34.78			22.81	507.8	30.	26.30	34.78	22.80	508.2	0.153
72.	25.76	34.74			22.93	496.7	50.	26.26	34.78	22.81	507.8	0.256
97.	22.64	34.88			23.97	398.8	75.	25.43	34.76	23.05	485.9	0.381
120.	20.74	34.86			24.48	350.8	100.	22.39	34.88	24.04	391.9	0.492
144.	17.88	34.74			25.12	289.9	150.	17.00	34.65	25.26	276.4	0.660
168.	14.38	34.39			25.65	239.1	200.	11.00	34.20	26.17	189.8	0.777
182.	12.71	34.34			25.96	210.2	250.	10.31	34.48	26.51	158.8	0.865
215.	10.14	34.14			26.28	179.8	300.	9.36	34.49	26.68	143.2	0.941
241.	10.24	34.41			26.47	162.2	400.	8.42	34.56	26.88	125.1	1.077
266.	10.29	34.54			26.56	154.0	500.	7.45	34.54	27.01	114.0	1.197
289.	9.56	34.49			26.65	146.1	600.	6.65	34.52	27.11	105.4	1.308
387.	8.56	34.56			26.86	126.9	700.	5.91	34.52	27.20	96.9	1.410
484.	7.59	34.54			26.99	115.5	800.	5.28	34.52	27.29	89.3	1.504
580.	6.81	34.52			27.09	107.2	1000.	4.38	34.54	27.40	78.4	1.674
775.	5.42	34.52			27.27	90.9	1200.	3.70	34.57	27.49	70.2	1.825
969.	4.50	34.54			27.39	79.8						
1164.	3.85	34.56			27.47	72.0						
1460.	3.07	34.60			27.58	61.8						

CROMWELL 5, STATION 25, 11-30N LAT, 151- 0W LONG, JUNE 26, 1964, 2400 G.C.T.
DRY BULB 26.4 WET BULB 22.9 WIND SPEED 19, DIR. 06 BAR. 12 WEATHER 03 VIS. 7 CLOUD TYPE 8, COVER 2

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.36	34.42			22.51	534.7	0.	26.36	34.42	22.51	534.7	0.000
10.Δ	26.34	34.42			22.51	534.5	10.	26.34	34.42	22.51	534.5	0.054
30.Δ	26.20	34.42			22.56	531.1	20.	26.28	34.42	22.53	533.3	0.108
50.Δ	26.00	34.44			22.63	524.5	30.	26.20	34.42	22.56	531.1	0.161
77.	23.00	34.76			23.77	416.6	50.	26.00	34.44	22.63	524.5	0.268
102.	17.88	34.72			25.11	289.9	75.	23.32	34.74	23.66	427.0	0.387
128.	13.10	34.28			25.83	220.7	100.	18.32	34.74	25.01	299.1	0.479
153.	11.72	34.58			26.34	173.5	150.	11.77	34.53	26.29	178.1	0.599
178.	11.51	34.75			26.51	157.8	200.	11.06	34.75	26.59	150.4	0.682
193.	11.17	34.75			26.57	152.1	250.	10.48	34.72	26.67	143.4	0.756
227.	10.73	34.74			26.64	146.0	300.	10.03	34.71	26.74	137.6	0.827
255.	10.43	34.72			26.68	142.9	400.	9.21	34.67	26.85	129.1	0.961
280.	10.21	34.72			26.72	139.7	500.	8.25	34.63	26.96	119.4	1.087
306.	9.97	34.71			26.75	137.0	600.	7.31	34.57	27.06	111.2	1.203
407.	9.15	34.67			26.86	128.5	700.	6.43	34.54	27.16	102.0	1.311
510.	8.15	34.62			26.97	118.4	800.	5.65	34.54	27.25	93.0	1.410
613.	7.19	34.56			27.07	110.2	1000.	4.58	34.56	27.39	79.9	1.584
816.	5.54	34.54			27.27	91.5	1200.	3.86	34.58	27.49	71.1	1.737
1016.	4.52	34.56			27.40	79.0	1500.	3.04	34.60	27.58	61.8	1.939
1215.	3.81	34.58			27.49	70.5						
1517.	3.01	34.60			27.59	61.5						

CROMWELL 5, STATION 26, 10- 4N LAT, 148- 3W LONG, JUNE 27, 1964, 1900 G.C.T.
DRY BULB 25.8 WET BULB 23.9 WIND SPEED 14, DIR. 04 BAR. 13 WEATHER 02 VIS. 7 CLOUD TYPE 4, COVER 6

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.85	34.01			22.04	579.0	0.	26.85	34.01	22.04	579.0	0.000
10.	26.76	34.01			22.07	576.7	10.	26.76	34.01	22.07	576.7	0.058
30.Δ	26.60	34.02			22.13	571.9	20.	26.74	33.98	22.06	578.3	0.116
49.	25.55	34.48			22.80	508.3	30.	26.60	34.02	22.13	571.9	0.174
59.	21.67	34.53			23.97	396.7	50.	25.27	34.49	22.90	499.0	0.282
68.	16.22	34.36			25.22	277.4	75.	15.06	34.38	25.50	251.1	0.377
78.	14.93	34.42			25.56	245.7	100.	12.71	34.67	26.21	183.8	0.431
88.	13.52	34.58			25.98	205.8	150.	11.53	34.75	26.50	157.6	0.517
98.	12.77	34.66			26.19	185.7	200.	10.84	34.73	26.61	148.0	0.594
108.	12.56	34.70			26.27	179.1	250.	10.43	34.72	26.68	142.9	0.668
147.	11.59	34.75			26.49	158.5	300.	10.04	34.69	26.72	139.6	0.739
196.	10.88	34.73			26.61	148.6	400.	9.35	34.68	26.83	131.0	0.876
246.	10.46	34.72			26.67	143.2	500.	8.48	34.64	26.94	122.0	1.003
296.	10.07	34.69			26.72	139.9	600.	7.14	34.58	27.09	107.9	1.119
396.	9.38	34.68			26.83	131.3	700.	6.22	34.56	27.20	97.9	1.223
496.	8.53	34.64			26.93	122.6	800.	5.56	34.56	27.28	90.2	1.319
592.	7.22	34.58			27.08	108.9	1000.	4.53	34.57	27.41	78.3	1.489
791.	5.62	34.56			27.27	90.8	1200.	3.77	34.58	27.50	69.6	1.639
989.	4.58	34.57			27.40	78.8						
1186.	3.85	34.58			27.49	70.8						
1487.	3.02	34.62			27.60	59.9						

TEMPERATURE ERROR TERM AT 75. METERS IS 0.18

ΔFROM BT DATA

Table 2.--Continued

CROMWELL 5, STATION 27, 11-32N LAT, 148- 3W LONG, JUNE 28, 1964, 0600 G.C.T.
DRY BULB 26.8 WET BULB 24.2 WIND SPEED 17, DIR. 11 BAR. 13 WEATHER 00 VIS. 8 CLOUD TYPE , COVER

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.73	34.03			22.10	573.9	0.	26.73	34.03	22.10	573.9	0.000
10.	26.71	34.04			22.11	573.0	10.	26.71	34.04	22.11	573.0	0.058
30.Δ	26.60	34.06			22.16	569.0	20.	26.68	34.03	22.11	573.1	0.115
49.	26.15	34.33			22.50	536.8	30.	26.60	34.06	22.16	569.0	0.173
59.	25.35	34.44			22.83	505.7	50.	26.07	34.34	22.54	533.4	0.284
69.	25.16	34.45			22.90	499.8	75.	23.77	34.41	23.28	463.1	0.410
79.	22.46	34.40			23.65	427.9	100.	15.18	34.39	25.48	254.1	0.500
88.	18.90	34.54			24.71	326.8	150.	11.83	34.76	26.46	161.9	0.605
98.	15.58	34.38			25.38	263.0	200.	10.93	34.75	26.61	148.0	0.683
108.	14.03	34.46			25.78	225.2	250.	10.38	34.74	26.70	140.5	0.756
148.	11.89	34.76			26.44	163.3	300.	9.87	34.72	26.77	134.5	0.825
199.	10.94	34.75			26.61	148.2	400.	9.03	34.67	26.87	126.6	0.957
248.	10.40	34.74			26.70	140.8	500.	8.10	34.62	26.98	117.6	1.080
299.	9.88	34.72			26.77	134.6	600.	7.13	34.57	27.08	108.4	1.194
397.	9.06	34.67			26.87	126.9	700.	6.29	34.55	27.18	99.5	1.299
497.	8.13	34.62			26.98	117.9	800.	5.58	34.55	27.27	91.1	1.396
595.	7.17	34.57			27.08	108.9	1000.	4.48	34.57	27.42	77.6	1.566
794.	5.62	34.55			27.27	91.6	1200.	3.79	34.59	27.50	69.4	1.715
994.	4.50	34.57			27.41	77.8						
1192.	3.90	34.59			27.49	70.7						
1493.	3.19	34.61			27.58	62.8						

CROMWELL 5, STATION 28, 12-57N LAT, 147-58W LONG, JUNE 28, 1964, 1600 G.C.T.
DRY BULB 25.3 WET BULB 23.7 WIND SPEED 22, DIR. 09 BAR. 11 WEATHER 02 VIS. 7 CLOUD TYPE 8, COVER 3

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.95	34.48			22.68	518.1	0.	25.95	34.48	22.68	518.1	0.000
10.	25.94	34.48			22.68	518.2	10.	25.94	34.48	22.68	518.2	0.052
49.	25.01	34.45			22.94	494.6	20.	25.76	34.48	22.73	513.8	0.104
59.	24.79	34.44			23.00	489.4	30.	25.54	34.47	22.80	508.2	0.156
68.	24.33	34.40			23.11	479.4	50.	24.99	34.45	22.95	494.3	0.257
78.	24.14	34.40			23.17	474.4	75.	24.20	34.40	23.15	475.9	0.379
87.	23.64	34.34			23.27	465.0	100.	20.02	34.69	24.54	344.0	0.482
97.	20.31	34.64			24.43	354.9	150.	12.98	34.31	25.88	216.6	0.623
107.	19.75	34.76			24.66	332.4	200.	11.45	34.62	26.41	167.1	0.720
146.	13.27	34.30			25.82	223.0	250.	10.80	34.69	26.59	151.7	0.800
194.	11.57	34.60			26.38	170.3	300.	10.27	34.72	26.70	141.4	0.874
243.	10.88	34.68			26.57	153.4	400.	9.00	34.70	26.90	124.1	1.008
291.	10.38	34.71			26.68	143.6	500.	7.91	34.52	26.93	122.2	1.132
388.	9.13	34.72			26.90	124.2	600.	6.83	34.54	27.10	106.2	1.248
486.	8.07	34.52			26.91	124.1	700.	6.03	34.54	27.21	96.5	1.350
583.	6.98	34.54			27.08	108.2	800.	5.43	34.54	27.28	89.7	1.444
780.	5.54	34.54			27.27	91.1	1000.	4.49	34.56	27.41	78.3	1.614
977.	4.58	34.56			27.40	79.4	1200.	3.79	34.58	27.50	69.8	1.764
1175.	3.88	34.58			27.49	71.0						
1470.	3.18	34.62			27.59	61.8						

TEMPERATURE ERROR TERM AT 100. METERS IS 0.11

CROMWELL 5, STATION 29, 14-32N LAT, 148- 0W LONG, JUNE 29, 1964, 0200 G.C.T.
DRY BULB 25.5 WET BULB 23.3 WIND SPEED 19, DIR. 06 BAR. 13 WEATHER 03 VIS. 7 CLOUD TYPE 4, COVER 6

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.27	34.48			22.89	498.1	0.	25.27	34.48	22.89	498.1	0.000
10.	25.24	34.48			22.90	497.6	10.	25.24	34.48	22.90	497.6	0.050
51.	25.06	34.47			22.94	494.7	20.	25.20	34.47	22.90	497.5	0.100
76.	24.93	34.53			23.03	487.6	30.	25.16	34.47	22.91	497.0	0.150
101.	22.52	34.88			24.00	395.7	50.	25.07	34.47	22.94	494.9	0.250
125.	19.42	34.72			24.72	327.8	75.	24.96	34.52	23.02	488.8	0.374
151.	15.65	34.50			25.46	257.3	100.	22.65	34.87	23.96	400.0	0.486
176.	12.72	34.26			25.89	216.1	150.	15.79	34.51	25.44	259.7	0.652
191.	11.69	34.21			26.05	201.0	200.	11.33	34.24	26.14	192.8	0.766
224.	10.77	34.38			26.35	173.1	250.	10.34	34.52	26.53	156.4	0.854
251.	10.33	34.52			26.54	155.8	300.	9.68	34.58	26.70	141.7	0.930
276.	9.95	34.56			26.64	147.0	400.	8.89	34.62	26.86	127.8	1.065
301.	9.67	34.58			26.70	141.5	500.	7.61	34.52	26.98	117.5	1.189
402.	8.87	34.62			26.86	127.6	600.	6.74	34.51	27.09	107.2	1.303
501.	7.60	34.52			26.98	117.4	700.	6.06	34.51	27.18	99.4	1.407
601.	6.73	34.51			27.09	107.1	800.	5.49	34.51	27.25	92.9	1.504
800.	5.49	34.51			27.25	92.9	1000.	4.48	34.53	27.38	80.6	1.680
1000.	4.48	34.53			27.38	80.6	1200.	3.78	34.56	27.48	71.9	1.834
1198.	3.84	34.56			27.47	72.2						
1498.	3.11	34.58			27.56	64.0						

ΔFROM BT DATA

Table 2.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 5, STATION 30, 16- ON LAT, 147-58W LONG, JUNE 29, 1964, 1200 G.C.T.
DRY BULB 24.3 WET BULB 22.2 WIND SPEED 19, DIR. 04 BAR. 14 WEATHER 02 VIS. 7 CLOUD TYPE 4, COVER 2

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.15	34.62			23.03	484.5	0.	25.15	34.62	23.03	484.5	0.000
10.Δ	25.16	34.62			23.03	485.2	10.	25.16	34.62	23.03	485.2	0.049
30.Δ	25.15	34.62			23.03	485.7	20.	25.16	34.62	23.03	485.5	0.098
50.Δ	25.15	34.62			23.03	486.5	30.	25.15	34.62	23.03	485.7	0.147
75.Δ	25.12	34.62			23.04	486.6	50.	25.15	34.62	23.03	486.5	0.245
98.	23.09	34.77			23.75	419.1	75.	25.12	34.62	23.04	486.6	0.367
121.	21.65	34.96			24.30	367.4	100.	22.94	34.79	23.81	413.9	0.481
146.	20.69	35.05			24.64	336.7	150.	20.36	35.03	24.71	330.0	0.668
170.	18.20	34.79			25.08	294.7	200.	14.67	34.38	25.58	247.0	0.813
184.	16.37	34.54			25.33	271.2	250.	11.51	34.30	26.16	192.5	0.924
217.	13.27	34.30			25.82	224.8	300.	9.61	34.34	26.53	157.9	1.013
243.	11.81	34.28			26.09	199.3	400.	8.45	34.46	26.81	132.5	1.159
269.	10.77	34.36			26.34	175.5	500.	7.46	34.48	26.97	118.3	1.286
293.	9.78	34.34			26.49	160.8	600.	6.95	34.48	27.03	112.7	1.402
390.	8.57	34.46			26.78	134.5	700.	6.28	34.49	27.13	104.0	1.512
489.	7.51	34.48			26.96	118.8	800.	5.17	34.52	27.30	87.8	1.609
682.	6.50	34.48			27.10	107.3	1000.	4.32	34.54	27.41	77.5	1.776
781.	5.31	34.52			27.28	89.6	1200.	3.66	34.58	27.51	68.7	1.924
977.	4.40	34.54			27.40	78.6						
1176.	3.78	34.58			27.50	69.8						
1467.	3.00	34.62			27.60	59.5						

TEMPERATURE ERROR TERM AT 60C. METERS IS 0.13

CROMWELL 5, STATION 31, 17-28N LAT, 147-57W LONG, JUNE 29, 1964, 2100 G.C.T.
DRY BULB 25.3 WET BULB 22.8 WIND SPEED 21, DIR. 07 BAR. 16 WEATHER 02 VIS. 7 CLOUD TYPE 8, COVER 6

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.44	34.78			23.06	481.5	0.	25.44	34.78	23.06	481.5	0.000
10.	25.41	34.78			23.07	481.0	10.	25.41	34.78	23.07	481.0	0.048
30.Δ	25.18	34.78			23.14	475.1	20.	25.31	34.78	23.10	478.4	0.097
51.	24.95	34.78			23.21	469.2	30.	25.18	34.78	23.14	475.1	0.145
77.	22.72	35.00			24.03	391.6	50.	24.98	34.78	23.20	470.1	0.240
101.	22.05	35.13			24.32	365.0	75.	22.90	34.98	23.97	397.9	0.349
126.	20.43	35.16			24.79	321.4	100.	22.07	35.13	24.31	365.9	0.446
153.	19.46	35.04			24.95	306.6	150.	19.57	35.06	24.94	307.7	0.615
179.	17.68	34.81			25.22	281.3	200.	15.47	34.52	25.51	253.9	0.757
194.	16.18	34.60			25.42	262.9	250.	11.19	34.14	26.09	198.4	0.871
227.	12.59	34.22			25.89	217.8	300.	9.61	34.19	26.41	169.0	0.964
253.	11.05	34.14			26.12	196.2	400.	8.38	34.40	26.77	136.2	1.118
279.	9.98	34.16			26.32	177.0	500.	7.16	34.43	26.97	117.5	1.246
305.	9.55	34.20			26.42	167.6	600.	6.32	34.44	27.09	106.6	1.359
405.	8.33	34.41			26.78	134.8	700.	5.68	34.46	27.19	98.0	1.462
507.	7.08	34.43			26.98	116.6	800.	5.14	34.48	27.27	90.7	1.557
607.	6.27	34.44			27.10	106.0	1000.	4.20	34.50	27.39	79.0	1.729
810.	5.09	34.48			27.27	90.0	1200.	3.58	34.54	27.49	70.4	1.881
981.	4.26	34.50			27.38	79.9						
1105.	3.91	34.53			27.44	74.5						
1330.	3.25	34.56			27.53	66.0						

CROMWELL 5, STATION 32, 19- ON LAT, 148- OW LONG, JUNE 30, 1964, 0700 G.C.T.
DRY BULB 24.4 WET BULB 21.7 WIND SPEED 21, DIR. 05 BAR. 16 WEATHER 02 VIS. 7 CLOUD TYPE 8, COVER 3

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.63	34.73			23.27	461.6	0.	24.63	34.73	23.27	461.6	0.000
11.	24.65	34.75			23.28	461.2	10.	24.65	34.75	23.28	461.2	0.046
30.Δ	24.60	34.73			23.28	461.9	20.	24.63	34.74	23.28	461.7	0.093
50.Δ	24.54	34.78			23.34	457.4	30.	24.60	34.73	23.28	461.9	0.139
78.	23.33	34.89			23.78	416.4	50.	24.54	34.78	23.34	457.4	0.232
90.	23.17	34.98			23.89	405.9	75.	23.46	34.87	23.72	421.1	0.343
103.	22.64	35.08			24.12	384.7	100.	22.79	35.06	24.06	389.8	0.445
136.	20.65	34.86			24.50	349.0	150.	18.86	34.70	24.85	316.1	0.623
154.	18.34	34.66			24.95	306.9	200.	14.20	34.30	25.63	242.6	0.764
174.	16.58	34.50			25.25	278.5	250.	10.48	34.11	26.19	188.7	0.872
217.	12.69	34.20			25.85	221.0	300.	8.77	34.11	26.48	161.6	0.961
236.	11.19	34.13			26.08	199.0	400.	7.82	34.28	26.75	136.8	1.111
266.	9.88	34.10			26.29	179.5	500.	6.82	34.35	26.95	119.0	1.240
292.	8.92	34.10			26.45	164.7	600.	5.99	34.41	27.11	104.4	1.353
411.	7.83	34.30			26.77	135.5	700.	5.39	34.46	27.22	94.3	1.454
513.	6.68	34.35			26.97	117.0	800.	4.91	34.49	27.30	87.2	1.545
614.	5.90	34.42			27.13	102.6	1000.	4.17	34.54	27.42	76.3	1.711
817.	4.84	34.49			27.31	86.2	1200.	3.61	34.57	27.50	68.8	1.858
1020.	4.11	34.54			27.43	75.4	1500.	2.87	34.61	27.61	59.1	2.052
1222.	3.55	34.57			27.51	68.1						
1524.	2.82	34.61			27.61	58.5						

ΔFROM BT DATA

Table 2.--Continued

CROMWELL 5, STATION 33, 20-32N LAT, 148- 1W LONG, JUNE 30, 1964, 1600 G.C.T.
DRY BULB 24.0 WET BULB 20.0 WIND SPEED 18, DIR. 04 BAR. 19 WEATHER 01 VIS. 9 CLOUD TYPE 4, COVER 3

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA				
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.23	34.75			23.41	448.7	0.	24.23	34.75	23.41	448.7	0.000
10.	24.22	34.75			23.41	448.8	10.	24.22	34.75	23.41	448.8	0.045
20.Δ	24.22	34.75			23.41	449.2	20.	24.22	34.75	23.41	449.2	0.090
30.Δ	24.23	34.75			23.41	449.9	30.	24.23	34.75	23.41	449.9	0.136
49.	23.16	35.08			23.97	396.9	50.	23.13	35.09	23.98	395.7	0.221
73.	22.72	35.11			24.12	383.5	75.	22.69	35.11	24.13	382.6	0.319
96.	22.31	35.14			24.26	371.1	100.	22.21	35.15	24.29	367.7	0.413
120.	21.69	35.22			24.49	349.6	150.	20.74	35.22	24.76	325.4	0.588
146.	20.99	35.25			24.71	330.0	200.	17.98	34.87	25.20	284.7	0.742
169.	19.45	35.07			24.98	304.7	250.	14.35	34.40	25.67	239.8	0.874
183.	18.75	34.98			25.09	294.5	300.	11.79	34.18	26.01	207.8	0.987
216.	17.07	34.74			25.32	273.4	400.	8.68	34.18	26.54	157.3	1.171
241.	14.85	34.46			25.61	245.8	500.	6.55	34.20	26.87	126.3	1.314
266.	13.60	34.33			25.77	230.4	600.	5.73	34.32	27.07	107.8	1.433
290.	12.23	34.20			25.94	214.1	700.	5.17	34.39	27.19	96.8	1.536
387.	9.05	34.18			26.49	162.6	800.	4.79	34.43	27.27	89.6	1.630
484.	6.76	34.18			26.83	130.2	1000.	4.15	34.51	27.40	77.9	1.800
580.	5.86	34.30			27.04	110.6	1200.	3.59	34.56	27.50	69.5	1.949
774.	4.89	34.42			27.25	91.5						
958.	4.27	34.50			27.38	79.8						
1135.	3.80	34.54			27.46	72.7						
1401.	3.06	34.57			27.56	63.5						

CROMWELL 5, STATION 34, 21-59N LAT, 147-57W LONG, JULY 1, 1964, 0200 G.C.T.
DRY BULB 23.4 WET BULB 20.0 WIND SPEED 18, DIR. 05 BAR. 19 WEATHER 02 VIS. 9 CLOUD TYPE 8, COVER 2

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.92	34.86			23.58	432.0	0.	23.92	34.86	23.58	432.0	0.000
9.	23.89	34.87			23.60	430.8	10.	23.87	34.88	23.61	429.3	0.043
30.Δ	23.46	35.19			23.96	396.5	20.	23.68	35.03	23.78	413.7	0.086
48.	23.31	35.22			24.03	390.9	30.	23.46	35.19	23.96	396.5	0.127
72.	21.96	35.22			24.42	355.0	50.	23.21	35.22	24.06	388.2	0.206
96.	21.34	35.30			24.65	333.7	75.	21.87	35.23	24.45	351.8	0.299
119.	20.61	35.23			24.79	320.7	100.	21.21	35.29	24.68	331.1	0.385
143.	20.10	35.20			24.91	310.7	150.	19.75	35.15	24.96	305.7	0.545
166.	18.90	35.02			25.08	294.7	200.	17.24	34.77	25.30	274.7	0.692
181.	18.36	34.93			25.15	288.7	250.	14.08	34.37	25.70	236.9	0.821
213.	16.36	34.65			25.41	263.8	300.	11.33	34.13	26.06	202.9	0.931
239.	14.79	34.46			25.62	244.5	400.	8.44	34.08	26.50	161.0	1.115
264.	13.18	34.26			25.80	227.2	500.	6.59	34.12	26.80	132.4	1.263
287.	11.88	34.16			25.98	210.5	600.	5.62	34.25	27.03	111.3	1.386
383.	8.86	34.08			26.44	166.9	700.	5.01	34.36	27.19	96.6	1.491
479.	6.88	34.10			26.75	137.7	800.	4.61	34.44	27.30	86.8	1.584
575.	5.81	34.22			26.98	115.8	1000.	3.97	34.52	27.43	74.7	1.747
766.	4.74	34.42			27.27	89.6	1200.	3.39	34.57	27.53	65.9	1.890
957.	4.11	34.51			27.41	77.1						
1147.	3.51	34.56			27.51	67.8						
1433.	2.88	34.59			27.59	60.1						

CROMWELL 5, STATION 35, 23-28N LAT, 147-56W LONG, JULY 1, 1964, 1200 G.C.T.
DRY BULB 22.6 WET BULB 18.9 WIND SPEED 17, DIR. 05 BAR. 20 WEATHER 01 VIS. 8 CLOUD TYPE 6, COVER 4

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.32	35.20			24.01	390.7	0.	23.32	35.20	24.01	390.7	0.000
9.	23.31	35.20			24.02	390.8	10.	23.31	35.20	24.02	390.9	0.039
30.Δ	23.30	35.20			24.02	391.3	20.	23.31	35.20	24.02	391.2	0.079
48.	23.25	35.21			24.04	389.9	30.	23.30	35.20	24.02	391.3	0.118
73.	21.51	35.28			24.59	338.8	50.	23.12	35.22	24.08	386.1	0.196
96.	20.96	35.25			24.71	327.4	75.	21.44	35.28	24.60	337.2	0.288
121.	20.32	35.22			24.86	314.0	100.	20.87	35.25	24.74	325.3	0.371
146.	19.32	35.06			25.00	301.4	150.	19.18	35.04	25.02	299.7	0.529
169.	18.46	34.93			25.12	290.7	200.	16.65	34.68	25.37	267.4	0.671
183.	17.71	34.82			25.22	281.4	250.	13.21	34.28	25.81	226.1	0.796
216.	15.54	34.55			25.52	253.2	300.	11.24	34.14	26.08	200.4	0.903
242.	13.63	34.32			25.76	231.1	400.	8.46	34.03	26.47	164.4	1.087
266.	12.51	34.22			25.90	217.3	500.	6.36	34.05	26.78	134.7	1.239
291.	11.54	34.16			26.04	204.4	600.	5.24	34.14	26.99	114.7	1.364
387.	8.80	34.04			26.42	169.0	700.	4.68	34.26	27.15	100.1	1.473
485.	6.60	34.04			26.74	138.4	800.	4.40	34.37	27.27	89.2	1.569
582.	5.38	34.12			26.96	117.8	1000.	3.93	34.51	27.43	75.4	1.735
776.	4.47	34.35			27.24	91.6	1200.	3.48	34.57	27.52	67.0	1.879
970.	4.00	34.50			27.41	76.6						
1165.	3.58	34.54			27.48	70.2						
1459.	2.89	34.60			27.60	59.6						

ΔFROM BT DATA

Table 2.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 5, STATION 36, 25- ON LAT, 147-57W LONG, JULY 2, 1964, 0400 G.C.T.
DRY BULB 22.5 WET BULB 19.2 WIND SPEED 16, DIR. 04 BAR. 20 WEATHER 02 VIS. 8 CLOUD TYPE 8, COVER 5

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.32	35.24			24.04	387.9	0.	23.32	35.24	24.04	387.9	0.000
10.Δ	23.32	35.24			24.04	388.2	10.	23.32	35.24	24.04	388.2	0.039
30.Δ	23.14	35.25			24.10	383.3	20.	23.30	35.24	24.05	388.1	0.078
48.	22.23	35.33			24.42	353.4	30.	23.14	35.25	24.10	383.3	0.117
73.	21.28	35.34			24.70	328.4	50.	22.14	35.33	24.45	350.8	0.191
96.	20.81	35.30			24.79	319.9	75.	21.23	35.34	24.71	327.5	0.276
119.	20.26	35.28			24.93	308.1	100.	20.73	35.30	24.82	317.9	0.358
141.	19.37	35.12			25.04	298.1	150.	18.89	35.05	25.10	291.9	0.511
164.	18.08	34.92			25.21	282.2	200.	15.99	34.60	25.46	258.7	0.650
177.	17.36	34.79			25.29	275.2	250.	12.57	34.22	25.90	217.6	0.770
207.	15.54	34.55			25.52	253.0	300.	10.91	34.11	26.12	197.4	0.875
232.	13.78	34.34			25.74	232.4	400.	8.39	34.03	26.48	163.4	1.057
255.	12.28	34.20			25.93	214.2	500.	6.48	34.03	26.74	137.9	1.209
277.	11.58	34.14			26.02	206.2	600.	5.34	34.12	26.96	117.5	1.338
366.	9.20	34.06			26.37	173.4	700.	4.73	34.24	27.12	102.5	1.449
453.	7.28	34.01			26.62	149.6	800.	4.35	34.34	27.25	91.2	1.547
543.	5.88	34.06			26.85	128.1	1000.	3.85	34.47	27.40	77.1	1.717
720.	4.66	34.26			27.15	100.0	1200.	3.38	34.54	27.51	67.9	1.864
898.	4.09	34.42			27.34	83.0						
1080.	3.68	34.50			27.44	73.7						
1356.	3.06	34.55			27.54	64.7						

CROMWELL 5, STATION 37, 26-32N LAT, 147-56W LONG, JULY 2, 1964, 1500 G.C.T.
DRY BULB 21.7 WET BULB 17.6 WIND SPEED 18, DIR. 06 BAR. 22 WEATHER 03 VIS. 8 CLOUD TYPE 6, COVER 7

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	22.32	35.37			24.43	351.1	0.	22.32	35.37	24.43	351.1	0.000
10.Δ	22.32	35.38			24.44	350.8	10.	22.32	35.38	24.44	350.8	0.035
20.Δ	22.32	35.38			24.44	351.2	20.	22.32	35.38	24.44	351.2	0.071
30.Δ	22.32	35.38			24.44	351.6	30.	22.32	35.38	24.44	351.6	0.106
49.	20.97	35.34			24.78	319.4	50.	20.93	35.34	24.79	318.6	0.174
73.	20.51	35.34			24.90	308.5	75.	20.49	35.34	24.91	308.0	0.253
97.	20.36	35.34			24.94	305.5	100.	20.35	35.34	24.95	305.3	0.330
121.	20.29	35.34			24.96	304.6	150.	20.24	35.34	24.98	304.4	0.483
146.	20.25	35.34			24.97	304.5	200.	19.69	35.19	25.01	302.9	0.636
169.	20.22	35.34			24.98	304.5	250.	16.86	34.72	25.35	271.2	0.781
184.	20.23	35.34			24.98	305.3	300.	13.36	34.32	25.82	227.0	0.907
207.	19.35	35.11			25.03	300.7	400.	10.23	34.16	26.28	183.7	1.114
243.	17.39	34.80			25.29	277.3	500.	7.97	34.05	26.55	157.8	1.286
267.	15.51	34.53			25.52	255.6	600.	6.05	34.04	26.81	132.9	1.433
291.	13.81	34.36			25.75	233.1	700.	5.03	34.15	27.02	112.6	1.557
387.	10.56	34.18			26.24	187.7	800.	4.51	34.29	27.19	97.0	1.663
484.	8.34	34.06			26.51	162.1	1000.	3.91	34.44	27.37	80.2	1.842
581.	6.31	34.02			26.76	137.3	1200.	3.43	34.54	27.50	68.9	1.994
774.	4.63	34.26			27.15	100.2						
969.	3.98	34.42			27.35	82.3						
1162.	3.56	34.52			27.47	71.5						
1459.	2.91	34.58			27.58	61.3						

CROMWELL 5, STATION 38, 25- ON LAT, 151- OW LONG, JULY 3, 1964, 0800 G.C.T.
DRY BULB 23.5 WET BULB 19.9 WIND SPEED 16, DIR. 06 BAR. 21 WEATHER 02 VIS. 7 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.76	35.17			23.86	405.2	0.	23.76	35.17	23.86	405.2	0.000
9.Δ	23.76	35.17			23.86	405.5	10.	23.76	35.17	23.86	405.6	0.041
20.Δ	23.78	35.17			23.86	406.5	20.	23.78	35.17	23.86	406.5	0.082
30.Δ	23.80	35.17			23.85	407.5	30.	23.80	35.17	23.85	407.5	0.123
50.	23.03	35.32			24.19	376.0	50.	23.03	35.32	24.19	376.0	0.202
76.	21.79	35.33			24.55	342.7	75.	21.83	35.33	24.54	343.7	0.292
100.	21.25	35.32			24.69	330.1	100.	21.25	35.32	24.69	330.1	0.377
126.	20.91	35.32			24.78	322.2	150.	20.02	35.19	24.92	309.7	0.538
151.	19.97	35.18			24.93	309.1	200.	17.73	34.84	25.23	281.0	0.687
177.	18.77	34.98			25.08	294.8	250.	14.42	34.42	25.67	240.2	0.819
191.	18.13	34.89			25.17	286.5	300.	11.97	34.19	25.98	210.4	0.932
225.	16.37	34.67			25.43	263.0	400.	8.64	34.06	26.46	165.2	1.122
252.	14.27	34.40			25.69	238.5	500.	6.60	34.06	26.75	137.4	1.274
279.	12.92	34.25			25.85	223.3	600.	5.37	34.13	26.97	117.0	1.403
304.	11.80	34.18			26.01	207.9	700.	4.76	34.26	27.14	101.1	1.513
405.	8.52	34.06			26.48	163.5	800.	4.46	34.39	27.27	89.0	1.609
508.	6.48	34.06			26.77	135.6	1000.	3.97	34.51	27.42	76.0	1.776
608.	5.30	34.14			26.98	115.6	1200.	3.41	34.55	27.51	67.9	1.922
810.	4.45	34.40			27.28	88.0						
1012.	3.94	34.51			27.42	75.5						
1167.	3.45	34.54			27.50	68.7						
1389.	2.97	34.54			27.54	64.6						

ΔFROM BT DATA

Table 2.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 5, STATION 39, 24-58N LAT, 154- 0W LONG, JULY 3, 1964, 2300 G.C.T.
DRY BULB 24.8 WET BULB 20.5 WIND SPEED 19, DIR. 09 BAR. 22 WEATHER 01 VIS. 8 CLOUD TYPE 6, COVER 2

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.30	34.91			23.50	439.2	0.	24.30	34.91	23.50	439.2	0.000
10.	24.27	34.91			23.51	438.7	10.	24.27	34.91	23.51	438.7	0.044
30.Δ	24.24	34.91			23.52	438.7	20.	24.25	34.91	23.52	438.6	0.088
51.	24.23	34.91			23.53	439.2	30.	24.24	34.91	23.52	438.7	0.133
75.Δ	23.23	34.95			23.85	409.2	50.	24.24	34.91	23.52	439.4	0.221
77.	23.23	34.95			23.85	409.2	75.	23.23	34.95	23.85	409.2	0.328
101.	22.65	35.13			24.15	381.2	100.	22.69	35.12	24.13	383.0	0.428
126.	21.11	35.12			24.57	341.8	150.	20.36	35.10	24.76	325.1	0.606
153.	20.28	35.09			24.78	323.6	200.	17.92	34.84	25.19	285.6	0.760
177.	19.24	35.00			24.98	304.9	250.	15.38	34.55	25.56	251.0	0.895
192.	18.42	34.91			25.12	292.0	300.	12.74	34.29	25.91	217.8	1.014
226.	16.39	34.62			25.38	267.1	400.	9.32	34.09	26.38	173.7	1.211
253.	15.26	34.54			25.58	249.0	500.	7.04	34.02	26.66	146.1	1.372
279.	13.84	34.38			25.76	231.9	600.	5.56	34.06	26.88	124.9	1.509
304.	12.54	34.27			25.94	215.2	700.	4.71	34.16	27.07	107.5	1.627
404.	9.23	34.09			26.39	172.4	800.	4.23	34.29	27.22	93.3	1.728
505.	6.95	34.02			26.68	145.0	1000.	3.66	34.46	27.41	76.2	1.900
605.	5.50	34.06			26.89	124.0	1200.	3.32	34.53	27.50	68.2	2.046
807.	4.21	34.30			27.23	92.5						
1008.	3.65	34.46			27.41	75.7						
1208.	3.32	34.53			27.50	68.2						
1442.	2.82	34.58			27.59	60.2						

CROMWELL 5, STATION 40, 25- 1N LAT, 156-59W LONG, JULY 4, 1964, 1400 G.C.T.
DRY BULB 24.0 WET BULB 20.8 WIND SPEED 16, DIR. 08 BAR. 20 WEATHER 02 VIS. 7 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.33	35.12			23.65	424.9	0.	24.33	35.12	23.65	424.9	0.000
10.	24.35	35.12			23.65	425.9	10.	24.35	35.12	23.65	425.9	0.043
30.Δ	24.35	35.12			23.65	426.7	20.	24.36	35.12	23.65	426.4	0.086
50.Δ	24.30	35.12			23.66	426.0	30.	24.35	35.12	23.65	426.7	0.129
74.	23.54	35.12			23.89	405.5	50.	24.30	35.12	23.66	426.0	0.215
97.	22.74	35.10			24.10	385.7	75.	23.52	35.12	23.89	405.0	0.319
120.	20.46	34.94			24.61	337.8	100.	22.47	35.08	24.17	379.8	0.418
145.	18.41	34.77			25.01	300.3	150.	18.28	34.78	25.06	296.4	0.589
169.	17.76	34.81			25.20	282.8	200.	15.62	34.57	25.52	252.8	0.727
184.	16.66	34.69			25.38	266.8	250.	12.96	34.30	25.88	219.4	0.846
216.	14.69	34.47			25.65	241.1	300.	10.93	34.19	26.17	191.8	0.950
242.	13.39	34.34			25.82	224.9	400.	8.24	34.06	26.52	159.2	1.127
267.	12.11	34.24			26.00	208.4	500.	6.43	34.02	26.75	137.5	1.277
292.	11.20	34.20			26.14	195.4	600.	5.16	34.11	26.97	116.3	1.405
388.	8.50	34.07			26.49	162.1	700.	4.52	34.23	27.14	100.5	1.514
486.	6.66	34.02			26.71	140.7	800.	4.19	34.34	27.27	88.9	1.610
579.	5.34	34.08			26.93	120.2	1000.	3.66	34.47	27.42	75.2	1.776
771.	4.30	34.32			27.24	91.7	1200.	3.22	34.55	27.52	65.8	1.919
964.	3.74	34.45			27.40	77.2						
1157.	3.35	34.53			27.50	68.2						
1444.	2.72	34.58			27.60	59.0						

CROMWELL 5, STATION 41, 23-31N LAT, 156-58W LONG, JULY 4, 1964, 2300 G.C.T.
DRY BULB 23.6 WET BULB 20.2 WIND SPEED 12, DIR. 10 BAR. 21 WEATHER 03 VIS. 7 CLOUD TYPE 6, COVER 7

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.69	35.01			23.46	443.1	0.	24.69	35.01	23.46	443.1	0.000
9.	24.69	35.00			23.46	444.2	10.	24.69	35.00	23.45	444.4	0.045
30.Δ	24.64	35.02			23.49	442.2	20.	24.70	35.00	23.45	445.0	0.089
49.	24.16	35.14			23.72	420.5	30.	24.64	35.02	23.49	442.2	0.134
74.	23.34	35.17			23.98	396.3	50.	24.13	35.14	23.73	419.5	0.221
99.	22.50	35.20			24.25	372.0	75.	23.31	35.17	24.00	395.3	0.324
122.	21.84	35.20			24.43	355.1	100.	22.47	35.20	24.26	371.3	0.420
149.	20.78	35.11			24.66	334.8	150.	20.71	35.10	24.67	333.8	0.598
172.	18.84	34.86			24.97	305.0	200.	16.83	34.77	25.40	265.4	0.749
185.	17.73	34.84			25.23	280.5	250.	14.34	34.49	25.74	233.0	0.874
218.	15.97	34.66			25.51	254.7	300.	12.42	34.32	26.00	208.8	0.986
245.	14.60	34.52			25.71	236.4	400.	9.65	34.12	26.34	177.1	1.180
271.	13.35	34.40			25.88	220.5	500.	7.27	34.05	26.66	146.9	1.344
294.	12.60	34.34			25.98	210.9	600.	5.62	34.11	26.92	122.0	1.480
391.	9.88	34.13			26.31	179.9	700.	4.98	34.24	27.10	105.1	1.595
477.	7.80	34.06			26.59	153.9	800.	4.60	34.37	27.24	92.1	1.694
569.	5.92	34.07			26.85	128.2	1000.	3.86	34.51	27.43	74.4	1.863
757.	4.86	34.33			27.18	97.6	1200.	3.30	34.56	27.53	65.7	2.005
886.	4.14	34.43			27.34	82.7						
996.	3.87	34.51			27.43	74.5						
1183.	3.38	34.55			27.51	67.3						
1200.**	3.30**	34.56**			27.53	65.7						

TEMPERATURE ERROR TERM AT 700. METERS IS 0.13

ΔFROM BT DATA
**EXTRAPOLATED DATA

Table 2.--Continued

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
CROMWELL 5, STATION 42, 22- ON LAT, 156-58W LONG, JULY 5, 1964, 0900 G.C.T. DRY BULB 23.8 WET BULB 21.7 WIND SPEED 20, DIR. 08 BAR. 19 WEATHER 02 VIS. 7 CLOUD TYPE , COVER												
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.52	34.86			23.40	449.1	0.	24.52	34.86	23.40	449.1	0.000
10.	24.52	34.86			23.40	449.5	10.	24.52	34.86	23.40	449.5	0.045
30.Δ	24.52	34.86			23.40	450.2	20.	24.59	34.86	23.38	451.8	0.091
46.	23.72	34.85			23.63	428.9	30.	24.52	34.86	23.40	450.2	0.136
67.	23.38	34.90			23.77	416.6	50.	23.62	34.86	23.67	425.8	0.224
91.	23.14	34.95			23.88	407.3	75.	23.30	34.92	23.80	413.6	0.330
112.	22.83	35.02			24.02	394.5	100.	23.00	34.98	23.94	401.7	0.433
134.	22.68	35.06			24.09	388.4	150.	22.47	35.14	24.21	377.7	0.629
157.	22.34	35.17			24.27	372.1	200.	20.42	35.12	24.76	326.6	0.807
170.	21.97	35.18			24.38	361.8	250.	17.43	34.79	25.27	279.3	0.959
200.	20.42	35.12			24.76	326.6	300.	14.64	34.50	25.68	240.4	1.090
226.	19.09	35.00			25.02	302.9	400.	9.61	34.14	26.37	174.5	1.300
248.	17.53	34.80			25.25	280.7	500.	6.99	34.13	26.75	137.7	1.457
270.	16.56	34.70			25.41	266.5	600.	5.76	34.21	26.98	116.4	1.586
349.	11.48	34.20			26.09	201.7	700.	5.42	34.36	27.14	102.2	1.696
435.	8.68	34.16			26.53	159.1	800.	5.07	34.44	27.25	92.3	1.794
522.	6.53	34.12			26.81	132.0	1000.	4.33	34.52	27.39	79.4	1.968
714.	5.43	34.38			27.15	100.7	1200.	3.68	34.56	27.49	70.3	2.120
873.	4.80	34.48			27.31	87.0						
1048.	4.16	34.53			27.42	77.1						
1283.	3.44	34.56			27.51	68.0						

TEMPERATURE ERROR TERM AT 300. METERS IS 0.19
TEMPERATURE ERROR TERM AT 600. METERS IS 0.19

ΔFROM BT DATA

Table 3.--Original and derived oceanographic data for Townsend Cromwell cruise 6

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA				
CROMWELL 6, STATION 1, 20-34N LAT, 157-17W LONG, JULY 14, 1964, 0900 G.C.T. DRY BULB 25.5 WET BULB 21.2 WIND SPEED 18, DIR. 10 BAR. 21 WEATHER 02 VIS. 6 CLOUD TYPE 8, COVER 3											
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	25.74	34.81			22.99	488.2	0.	25.74	34.81	22.99	488.2	0.000
10.	25.74	34.80			22.98	489.3	10.	25.74	34.80	22.98	489.3	0.049
50.Δ	25.52	34.79			23.04	485.1	20.	25.71	34.79	22.99	489.0	0.098
76.	25.33	34.79			23.10	480.6	30.	25.66	34.79	23.00	488.3	0.148
99.	24.73	34.95			23.41	452.5	50.	25.52	34.79	23.04	485.1	0.246
123.	24.78	35.18			23.56	438.4	75.	25.34	34.79	23.10	481.0	0.367
150.	20.81	35.06			24.61	339.2	100.	24.76	34.96	23.41	452.5	0.485
174.	18.96	34.92			24.99	303.7	150.	20.81	35.06	24.61	339.2	0.685
188.	18.44	34.86			25.07	295.9	200.	17.69	34.78	25.20	284.1	0.842
221.	16.19	34.63			25.44	261.8	250.	14.39	34.43	25.68	238.7	0.973
248.	14.52	34.44			25.66	240.6	300.	11.88	34.26	26.05	203.8	1.085
273.	12.96	34.33			25.90	218.1	400.	8.70	34.14	26.51	160.4	1.269
298.	11.96	34.26			26.04	204.9	500.	6.67	34.15	26.82	131.1	1.416
397.	8.78	34.14			26.50	161.5	600.	5.78	34.28	27.03	111.6	1.538
496.	6.72	34.15			26.81	132.1	700.	5.36	34.35	27.14	101.6	1.646
593.	5.82	34.27			27.02	112.4	800.	5.07	34.41	27.22	95.0	1.746
789.	5.12	34.40			27.21	96.1	1000.	4.18	34.50	27.39	79.4	1.922
974.	4.26	34.49			27.38	80.6	1200.	3.57	34.54	27.48	70.6	2.074
1180.	3.71	34.52			27.46	73.4						
1473.	2.95	34.56			27.56	63.4						

CROMWELL 6, STATION 2, 19- ON LAT, 156-58W LONG, JULY 14, 1964, 1900 G.C.T. DRY BULB 25.5 WET BULB 22.0 WIND SPEED 18, DIR. 14 BAR. 2C WEATHER 01 VIS. 8 CLOUD TYPE 3, COVER 2											
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	25.39	34.74			23.05	482.9	0.	25.39	34.74	23.05	482.9	0.000
6.	25.41	34.75			23.05	483.0	10.	25.39	34.75	23.05	482.6	0.049
18.	25.33	34.75			23.07	481.1	20.	25.32	34.75	23.08	480.8	0.097
50.Δ	25.06	34.75			23.16	474.5	30.	25.24	34.75	23.10	479.0	0.145
83.	24.65	34.74			23.27	464.7	50.	25.06	34.75	23.16	474.5	0.242
107.	23.58	34.84			23.66	428.1	75.	24.81	34.74	23.22	469.4	0.360
134.	22.60	35.07			24.12	385.5	100.	23.92	34.80	23.54	440.0	0.475
158.	21.67	35.11			24.41	358.4	150.	21.97	35.10	24.33	366.5	0.678
184.	21.02	35.18			24.64	337.2	200.	18.18	34.79	25.08	295.5	0.845
198.	18.38	34.81			25.05	298.4	250.	14.79	34.48	25.63	243.5	0.981
234.	16.16	34.61			25.43	263.0	300.	12.40	34.28	25.97	211.7	1.096
260.	13.97	34.40			25.75	232.6	400.	8.54	34.14	26.54	157.5	1.282
310.	12.16	34.27			26.01	208.2	500.	6.77	34.24	26.87	126.2	1.425
412.	8.12	34.14			26.60	151.6	600.	5.98	34.32	27.04	110.8	1.545
513.	6.67	34.26			26.90	123.5	700.	5.47	34.39	27.16	100.0	1.651
613.	5.91	34.33			27.06	109.4	800.	5.09	34.46	27.26	91.4	1.748
818.	5.03	34.47			27.27	90.1	1000.	4.37	34.53	27.39	79.4	1.921
1020.	4.30	34.53			27.40	78.5	1200.	3.80	34.55	27.47	72.5	2.075
1214.	3.76	34.55			27.47	72.1						
1460.	3.01	34.58			27.57	62.6						

CROMWELL 6, STATION 3, 17-30N LAT, 157- OW LONG, JULY 15, 1964, 0400 G.C.T. DRY BULB 25.4 WET BULB 22.5 WIND SPEED 19, DIR. 07 BAR. 16 WEATHER 02 VIS. 7 CLOUD TYPE 8, COVER 6											
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.80	34.78			22.95	492.1	0.	25.80	34.78	22.95	492.1	0.000
10.	25.76	34.77			22.96	492.0	10.	25.76	34.77	22.96	492.0	0.050
51.	25.51	34.70			22.98	491.3	20.	25.74	34.74	22.94	494.1	0.099
76.	24.95	34.81			23.23	468.0	30.	25.70	34.72	22.94	494.7	0.149
101.	22.82	35.00			24.01	395.3	50.	25.52	34.70	22.98	491.6	0.248
126.	22.01	35.00			24.23	374.3	75.	24.99	34.80	23.22	469.6	0.369
150.	20.74	35.01			24.59	341.0	100.	22.91	34.99	23.98	398.1	0.479
176.	18.77	34.88			25.01	302.0	150.	20.74	35.01	24.59	341.0	0.665
190.	17.79	34.76			25.16	287.8	200.	17.02	34.68	25.28	276.1	0.821
224.	15.12	34.50			25.58	248.1	250.	13.11	34.30	25.85	222.6	0.946
250.	13.11	34.30			25.85	222.6	300.	10.59	34.26	26.29	180.7	1.048
276.	11.39	34.22			26.12	196.9	400.	8.32	34.30	26.70	142.6	1.211
301.	10.57	34.26			26.30	180.1	500.	7.25	34.42	26.95	119.7	1.343
401.	8.30	34.30			26.70	142.4	600.	6.59	34.46	27.07	108.9	1.459
501.	7.24	34.42			26.95	119.5	700.	5.94	34.47	27.17	100.3	1.565
600.	6.59	34.46			27.07	108.9	800.	5.35	34.48	27.24	93.3	1.662
800.	5.35	34.48			27.24	93.3	1000.	4.50	34.52	27.37	81.6	1.839
1000.	4.50	34.52			27.37	81.6	1200.	3.90	34.57	27.48	72.2	1.995
1200.	3.90	34.57			27.48	72.2	1500.	3.09	34.57	27.56	64.5	2.203
1500.	3.09	34.57			27.56	64.5						

ΔFROM BT DATA

Table 3.--Continued

CROMWELL 6, STATION 4, 15-56N LAT, 156-59W LONG, JULY 15, 1964, 1400 G.C.T.
DRY BULB 25.0 WET BULB 22.7 WIND SPEED 20, DIR. 06 BAR. 16 WEATHER 02 VIS. CLOUD TYPE , COVER

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.69	34.64			22.88	498.9	0.	25.69	34.64	22.88	498.9	0.000
9.	25.72	34.62			22.86	501.6	10.	25.72	34.62	22.86	501.6	0.050
30.Δ	25.64	34.62			22.88	500.1	20.	25.69	34.62	22.86	501.4	0.101
50.Δ	25.60	34.62			22.89	499.7	30.	25.64	34.62	22.88	500.1	0.151
72.	25.22	34.62			23.01	489.4	50.	25.60	34.62	22.89	499.7	0.252
94.Δ	23.53	34.68			23.56	437.7	75.	25.14	34.61	23.03	487.8	0.376
100.Δ	22.40	34.78			23.96	399.7	100.	22.40	34.78	23.96	399.7	0.488
118.	21.04	34.90			24.43	355.6	150.	18.76	34.89	25.02	299.7	0.664
142.	19.37	34.94			24.90	311.2	200.	13.44	34.30	25.78	227.4	0.797
165.	17.34	34.73			25.24	278.7	250.	11.28	34.23	26.14	193.8	0.903
179.	15.51	34.48			25.48	256.6	300.	9.19	34.23	26.51	159.1	0.992
211.	12.69	34.27			25.91	215.7	400.	7.76	34.37	26.83	129.3	1.138
237.	11.90	34.24			26.04	203.8	500.	6.84	34.43	27.01	113.0	1.260
261.	10.71	34.22			26.24	184.6	600.	5.98	34.43	27.12	103.0	1.369
284.	9.65	34.22			26.42	167.3	700.	5.36	34.46	27.22	93.9	1.469
378.	8.00	34.34			26.78	134.5	800.	4.90	34.49	27.31	86.6	1.560
473.	7.10	34.43			26.98	116.3	1000.	4.22	34.54	27.42	76.6	1.725
568.	6.22	34.42			27.09	106.3	1200.	3.61	34.57	27.51	68.6	1.872
757.	5.08	34.48			27.28	89.3						
947.	4.39	34.53			27.39	79.0						
1137.	3.80	34.56			27.48	71.2						
1381.	3.14	34.59			27.57	62.9						

CROMWELL 6, STATION 5, 14-25N LAT, 156-59W LONG, JULY 15, 1964, 2200 G.C.T.
DRY BULB 25.9 WET BULB 23.1 WIND SPEED 19, DIR. 07 BAR. 17 WEATHER 02 VIS. 7 CLOUD TYPE 8, COVER 4

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.71	34.68			22.90	496.6	0.	25.71	34.68	22.90	496.6	0.000
10.	25.73	34.68			22.90	497.6	10.	25.73	34.68	22.90	497.6	0.050
30.Δ	25.70	34.69			22.91	496.8	20.	25.72	34.68	22.90	497.5	0.100
50.Δ	25.64	34.69			22.93	495.8	30.	25.70	34.69	22.91	496.8	0.150
77.	24.22	34.82			23.46	446.4	50.	25.64	34.69	22.93	495.8	0.250
101.	23.47	34.91			23.75	419.7	75.	24.34	34.81	23.42	450.6	0.369
126.	22.12	35.08			24.26	371.4	100.	23.50	34.91	23.74	420.9	0.479
152.	20.00	35.00			24.78	322.9	150.	20.18	35.01	24.74	326.3	0.668
177.	17.96	34.78			25.13	289.9	200.	15.00	34.45	25.57	248.3	0.812
191.	16.17	34.56			25.39	265.5	250.	10.35	34.20	26.29	179.7	0.920
225.	12.15	34.26			26.01	206.6	300.	9.37	34.37	26.59	151.7	1.004
251.	10.30	34.20			26.30	178.9	400.	8.39	34.52	26.86	127.5	1.145
278.	9.73	34.30			26.47	162.6	500.	7.20	34.49	27.01	113.7	1.266
302.	9.34	34.38			26.60	150.9	600.	6.53	34.50	27.11	105.1	1.377
401.	8.38	34.52			26.86	127.4	700.	5.84	34.50	27.20	97.1	1.479
501.	7.19	34.49			27.01	113.6	800.	5.21	34.50	27.28	89.9	1.574
602.	6.52	34.50			27.11	105.0	1000.	4.38	34.54	27.40	78.7	1.744
801.	5.20	34.50			27.28	89.9	1200.	3.76	34.57	27.49	70.5	1.895
1001.	4.38	34.54			27.40	78.6						
1200.	3.76	34.57			27.49	70.5						
1482.	3.00	34.61			27.60	60.4						

CROMWELL 6, STATION 6, 13- 6N LAT, 157- 2W LONG, JULY 16, 1964, 0600 G.C.T.
DRY BULB 26.3 WET BULB 23.5 WIND SPEED 18, DIR. 07 BAR. 15 WEATHER 02 VIS. 8 CLOUD TYPE 8, COVER 4

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	26.61	34.62			22.58	527.9	0.	26.61	34.62	22.58	527.8	0.000
11.	26.63	34.62			22.57	528.9	10.	26.63	34.62	22.57	528.9	0.053
30.Δ	26.52	34.61			22.60	527.1	20.	26.59	34.62	22.58	528.4	0.106
50.Δ	26.36	34.61			22.65	523.0	30.	26.52	34.61	22.60	527.1	0.160
77.	23.78	34.60			23.42	449.8	50.	26.36	34.61	22.65	523.0	0.265
102.	22.90	34.84			23.86	409.0	75.	23.99	34.60	23.36	455.9	0.389
127.	20.27	34.77			24.53	345.5	100.	22.98	34.82	23.83	412.3	0.498
153.	18.23	34.80			25.08	294.1	150.	18.49	34.80	25.02	299.9	0.678
178.	14.67	34.42			25.62	243.2	200.	11.87	34.20	26.01	205.3	0.805
193.	12.55	34.24			25.91	214.8	250.	9.73	34.28	26.45	163.6	0.898
227.	10.30	34.19			26.29	179.1	300.	9.52	34.51	26.67	143.7	0.975
254.	9.69	34.30			26.48	161.5	400.	8.61	34.59	26.88	125.7	1.111
282.	9.51	34.42			26.60	150.3	500.	7.79	34.56	26.98	116.9	1.234
305.	9.52	34.54			26.69	142.0	600.	6.78	34.52	27.10	106.7	1.347
407.	8.52	34.58			26.89	125.2	700.	5.93	34.53	27.21	95.8	1.449
511.	7.70	34.56			26.99	116.1	800.	5.26	34.56	27.31	86.6	1.541
612.	6.65	34.52			27.11	105.4	1000.	4.31	34.52	27.40	79.0	1.709
815.	5.18	34.56			27.33	85.3	1200.	3.74	34.57	27.50	70.0	1.860
1018.	4.25	34.52			27.40	78.6						
1220.	3.69	34.58			27.51	69.1						
1498.	2.93	34.61			27.60	59.6						

ΔFROM BT DATA

Table 3.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 6, STATION 7, 11-31N LAT, 157- 1W LONG, JULY 16, 1964, 1600 G.C.T.
DRY BULB 26.0 WET BULB 23.5 WIND SPEED 20, DIR. 04 BAR. 13 WEATHER 03 VIS. 7 CLOUD TYPE 6, COVER 6

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.63	34.64			22.59	527.0	0.	26.63	34.64	22.59	527.0	0.000
10.	26.61	34.64			22.59	526.8	10.	26.61	34.64	22.59	526.8	0.053
30.Δ	26.60	34.65			22.60	526.6	20.	26.61	34.64	22.60	526.8	0.106
49.	26.52	34.66			22.64	524.2	30.	26.60	34.65	22.60	526.6	0.159
75.Δ	23.50	34.64			23.54	439.0	50.	26.41	34.66	22.67	521.1	0.265
77.	23.37	34.64			23.57	435.5	75.	23.50	34.64	23.54	439.0	0.386
101.	20.62	34.88			24.52	345.6	100.	20.76	34.87	24.48	349.9	0.485
125.	17.26	34.70			25.24	277.8	150.	13.57	34.37	25.81	223.6	0.630
151.	13.43	34.36			25.83	221.8	200.	10.63	34.52	26.49	159.7	0.726
175.	11.21	34.33			26.24	183.3	250.	10.45	34.68	26.64	146.1	0.803
190.	10.68	34.44			26.42	166.3	300.	9.80	34.67	26.75	136.8	0.875
224.	10.73	34.67			26.59	151.0	400.	8.71	34.61	26.88	125.8	1.007
251.	10.44	34.68			26.65	145.9	500.	7.71	34.56	26.99	116.0	1.129
276.	10.02	34.68			26.72	139.4	600.	6.70	34.53	27.11	105.2	1.241
302.	9.78	34.67			26.75	136.7	700.	5.94	34.53	27.21	96.2	1.342
401.	8.70	34.61			26.88	125.7	800.	5.34	34.54	27.29	88.7	1.436
502.	7.69	34.56			26.99	115.8	1000.	4.42	34.55	27.41	78.3	1.605
602.	6.68	34.53			27.11	105.0	1200.	3.67	34.58	27.51	68.7	1.754
802.	5.33	34.54			27.29	88.6	1500.	2.89	34.61	27.61	59.2	1.948
1002.	4.41	34.55			27.41	78.3						
1200.	3.67	34.58			27.51	68.7						
1501.	2.89	34.61			27.61	59.2						

CROMWELL 6, STATION 7A, 10- ON LAT, 153-58W LONG, JULY 17, 1964, 1100 G.C.T.
DRY BULB 26.0 WET BULB 23.9 WIND SPEED 11, DIR. 12 BAR. 13 WEATHER 02 VIS. CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.68	33.74	5.10	0.22	21.89	593.3	0.	26.68	33.74	21.89	593.3	0.000
9.	26.70	33.77	4.97	0.35	21.91	592.1	10.	26.70	33.77	21.91	592.2	0.060
20.Δ	26.70	33.76			21.90	593.2	20.	26.70	33.76	21.90	593.2	0.119
30.Δ	26.66	33.78			21.93	591.0	30.	26.66	33.78	21.93	591.0	0.179
40.Δ	20.38	34.47	4.67	0.67	24.28	366.9	50.	15.60	34.43	25.42	258.3	0.265
50.Δ	15.60	34.43			25.42	258.3	75.	12.07	34.39	26.13	191.6	0.321
55.	14.66	34.42	2.64	1.48	25.62	239.5	100.	11.22	34.49	26.36	169.8	0.367
65.	13.26	34.39	2.22	1.80	25.89	214.0	150.	10.77	34.67	26.58	150.0	0.447
77.	11.89	34.40	1.71	2.12	26.16	188.0	200.	10.28	34.70	26.69	141.0	0.521
89.	11.54	34.46	1.43	2.09	26.28	177.5	250.	9.62	34.66	26.77	133.4	0.590
113.	10.90	34.52	1.01	2.52	26.44	162.5	300.	9.38	34.65	26.80	131.5	0.657
160.	10.78	34.70	0.41	2.47	26.60	148.2	400.	8.63	34.64	26.92	122.2	0.785
174.	10.63	34.70	0.41	2.46	26.63	146.0	500.	7.65	34.58	27.02	113.6	0.904
230.	9.86	34.68*	0.47		26.75	135.7	600.	6.74	34.55	27.12	104.5	1.014
254.	9.58	34.66	0.41	2.63	26.78	133.1	700.	6.00	34.54	27.21	96.3	1.115
276.	9.50	34.65	0.48	2.47	26.78	133.0	800.	5.39	34.54	27.29	89.0	1.209
368.	8.92	34.66	0.70	2.62	26.88	124.8	1000.	4.46	34.57	27.42	77.5	1.377
461.	8.03	34.60	0.44	2.97	26.98	117.2	1200.	3.74	34.59	27.51	68.9	1.526
552.	7.15	34.56	0.51	2.93	27.07	108.7						
737.	5.76	34.54	0.86	2.98	27.24	93.5						
923.	4.77	34.56	0.92	3.02	27.37	81.3						
1108.	4.08	34.58	1.27	3.54	27.47	72.9						
1372.	3.27	34.60	1.73	2.48	27.56	63.6						

CROMWELL 6, STATION 8, 11-33N LAT, 154- OW LONG, JULY 17, 1964, 2000 G.C.T.
DRY BULB 26.9 WET BULB 23.9 WIND SPEED 16, DIR. 07 BAR. 13 WEATHER 03 VIS. 8 CLOUD TYPE 8, COVER 5

DEPTHΔ	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	27.00	34.13			22.08	574.9	0.	27.00	34.13	22.08	574.9	0.000
10.	27.00	34.13	5.04	0.30	22.08	575.3	10.	27.00	34.13	22.08	575.3	0.058
30.Δ	27.00	34.13			22.08	576.1	20.	27.07	34.10	22.04	580.0	0.116
50.	25.80	34.58	5.13	0.24	22.80	508.5	30.	27.00	34.13	22.08	576.1	0.174
60.	24.62	34.66	5.23	0.34	23.22	468.7	50.	25.80	34.58	22.80	508.5	0.284
77.	22.30	34.94	5.36	0.19	24.11	384.5	75.	22.59	34.91	24.00	394.4	0.397
103.	18.38	34.78	4.59	0.49	25.03	297.4	100.	18.86	34.82	24.94	305.7	0.486
127.	14.31	34.42	3.15		25.69	234.4	150.	12.40	34.59	26.21	185.0	0.609
153.	12.26	34.63	0.93	2.22	26.27	179.7	200.	10.78	34.74	26.63	146.4	0.693
178.	11.62	34.74	0.38	2.48	26.48	160.6	250.	10.26	34.71	26.70	140.4	0.765
183.	11.29	34.74	0.48	2.22	26.54	154.8	300.	9.60	34.67	26.78	133.9	0.834
227.	10.60	34.73	1.22	2.24	26.66	144.5	400.	8.88	34.63	26.87	126.9	0.966
254.	10.20	34.71	0.99	2.36	26.71	139.7	500.	7.69	34.55	26.99	116.6	1.089
281.	9.80	34.69	0.86	2.49	26.76	135.1	600.	6.69	34.52	27.10	105.8	1.201
307.	9.54	34.66	0.68	2.54	26.78	133.6	700.	5.95	34.52	27.20	97.4	1.304
408.	8.82	34.63	0.59	2.65	26.88	126.2	800.	5.38	34.52	27.27	90.8	1.399
510.	7.56	34.54	0.61	2.55	27.00	115.5	1000.	4.55	34.54	27.38	80.9	1.572
612.	6.59	34.52	0.69	2.71	27.12	104.6	1200.	3.86	34.56	27.47	72.6	1.728
814.	5.31	34.52	0.83	2.71	27.28	90.0						
1018.	4.49	34.54	1.18	2.93	27.39	80.2						
1207.	3.84	34.56	1.32	2.94	27.47	72.3						
1441.	3.19	34.58	1.72		27.55	64.6						

TEMPERATURE ERROR TERM AT 200. METERS IS 0.16

ΔFROM BT DATA
*INTERPOLATED DATA

Table 3.--Continued

CROMWELL 6, STATION 9, 13- 4N LAT, 154- 4W LONG, JULY 18, 1964, 0600 G.C.T.
DRY BULB 26.1 WET BULB 23.4 WIND SPEED 18, DIR. 07 BAR. 13 WEATHER 02 VIS. 8 CLOUD TYPE 8, COVER 2

ORIGINAL DATA				DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	26.43	34.69	6.03	0.25	22.69	517.4	0.	26.43	34.69	22.69	517.4	0.000
11.	26.44	34.68	5.09	0.20	22.68	518.8	10.	26.44	34.68	22.68	518.7	0.052
50.Δ	26.36	34.72			22.73	515.1	20.	26.44	34.68	22.68	518.8	0.104
75.	26.22	34.75	5.14	0.28	22.80	509.8	30.	26.42	34.69	22.69	518.3	0.157
99.	22.70	34.83	5.47	0.23	23.91	404.2	50.	26.36	34.72	22.73	515.1	0.261
123.	20.72	35.04	5.25	0.26	24.62	337.4	75.	26.22	34.75	22.80	509.8	0.390
148.	18.56	34.85	4.83	0.47	25.04	298.2	100.	22.60	34.84	23.95	400.7	0.505
171.	15.40	34.50	3.56	1.26	25.52	252.5	150.	18.29	34.82	25.08	293.8	0.680
187.	13.81	34.32	3.51	1.20	25.72	233.2	200.	12.91	34.38	25.95	211.4	0.807
221.	11.87	34.58	0.87	1.97	26.31	177.9	250.	10.77	34.60	26.53	157.4	0.900
247.	10.84	34.60*	0.89	2.12	26.51	158.6	300.	10.03	34.60	26.66	145.8	0.976
272.	10.39	34.60	0.56	2.01	26.59	151.4	400.	9.05	34.62	26.83	130.7	1.116
296.	10.07	34.60	0.45	2.34	26.65	146.5	500.	8.00	34.56	26.95	120.5	1.243
393.	9.12	34.62	0.41	2.41	26.82	131.5	600.	7.02	34.54	27.07	109.1	1.359
492.	8.08	34.56	0.41	2.08	26.94	121.5	700.	6.22	34.54	27.18	99.4	1.464
590.	7.11	34.54	0.43	2.05	27.06	110.2	800.	5.56	34.54	27.27	91.6	1.560
786.	5.64	34.54	0.70	2.97	27.26	92.5	1000.	4.59	34.54	27.38	81.0	1.735
982.	4.66	34.54	0.95	2.89	27.37	82.0	1200.	3.90	34.57	27.48	72.4	1.890
1182.	3.99	34.58	1.24	2.38	27.48	72.5						
1480.	3.32**	34.60	1.83	2.57	27.56	65.0						

CROMWELL 6, STATION 10, 14-27N LAT, 153-54W LONG, JULY 18, 1964, 1400 G.C.T.
DRY BULB 25.5 WET BULB 22.6 WIND SPEED 14, DIR. 06 BAR. 13 WEATHER 02 VIS. 7 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.93	34.80	5.11	0.29	22.93	494.5	0.	25.93	34.80	22.93	494.5	0.000
9.	25.96	34.81	5.11	0.24	22.92	495.0	10.	25.96	34.81	22.92	495.1	0.050
30.Δ	25.92	34.81			22.94	494.7	20.	25.95	34.81	22.93	495.0	0.100
50.Δ	25.88	34.81			22.95	494.3	30.	25.92	34.81	22.94	494.7	0.150
74.	23.25	34.76	5.47	0.23	23.70	423.4	50.	25.88	34.81	22.95	494.3	0.249
98.	22.45	34.97	5.41	0.21	24.09	387.2	75.	23.21	34.77	23.72	421.6	0.365
122.	20.63	34.93	5.03	0.38	24.56	343.0	100.	22.31	34.97	24.13	383.5	0.466
147.	19.15	34.92	4.67	0.44	24.94	307.4	150.	18.93	34.90	24.98	303.9	0.639
172.	17.11	34.66	4.30	0.63	25.25	278.8	200.	14.15	34.36	25.68	237.2	0.776
187.	15.71	34.50	4.31	0.76	25.45	259.7	250.	10.89	34.28	26.25	183.3	0.882
220.	12.02	34.22	3.47	1.49	26.00	207.0	300.	10.17	34.56	26.60	151.0	0.966
246.	10.94	34.23	1.53	1.95	26.21	187.5	400.	8.90	34.56	26.81	132.8	1.109
271.	10.72	34.52	0.77		26.47	163.0	500.	7.63	34.50	26.96	119.3	1.236
295.	10.25	34.56	0.55	2.48	26.59	152.5	600.	6.62	34.50	27.10	106.3	1.350
394.	8.98	34.56	0.35	2.62	26.80	133.7	700.	5.89	34.50	27.20	97.5	1.453
493.	7.71	34.50	0.51	2.72	26.94	120.3	800.	5.33	34.51	27.27	90.7	1.548
591.	6.69	34.50	0.46	2.57	27.09	107.2	1000.	4.38	34.54	27.40	78.6	1.720
788.	5.40	34.51	0.71	2.69	27.26	91.6	1200.	3.73	34.55	27.48	71.6	1.872
986.	4.43	34.54	0.92		27.40	79.1						
1183.	3.86	34.54	1.26	2.71	27.46	73.8						
1482.	3.06	34.57	1.64	2.86	27.56	64.0						

TEMPERATURE ERROR TERM AT 200. METERS IS 0.14

CROMWELL 6, STATION 11, 16- 0N LAT, 154- 1W LONG, JULY 18, 1964, 2300 G.C.T.
DRY BULB 25.9 WET BULB 23.0 WIND SPEED 15, DIR. 06 BAR. 16 WEATHER 01 VIS. 8 CLOUD TYPE 8, COVER 3

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.44	34.68	5.05	0.27	22.99	488.7	0.	25.44	34.68	22.99	488.7	0.000
9.	25.29	34.68	5.12	0.26	23.03	484.7	10.	25.30	34.68	23.03	485.2	0.049
30.Δ	25.14	34.72			23.11	478.2	20.	25.31	34.68	23.03	485.7	0.098
49.	23.40	35.00	5.52	0.20	23.84	409.3	30.	25.14	34.72	23.11	478.2	0.146
75.	22.72	35.05	5.51	0.26	24.07	387.9	50.	23.36	35.01	23.85	407.7	0.236
99.	21.95	35.10	5.37	0.24	24.33	364.4	75.	22.72	35.05	24.07	387.9	0.336
125.	20.19	34.96	4.85		24.70	329.7	100.	21.89	35.10	24.34	363.2	0.431
150.	18.45	34.81	4.79	0.54	25.03	298.5	150.	18.45	34.81	25.03	298.5	0.597
175.	15.95	34.48	3.96	0.98	25.38	266.0	200.	13.34	34.25	25.77	229.0	0.730
188.	14.54	34.38	4.29		25.61	243.7	250.	10.49	34.45	26.46	163.7	0.829
223.	11.53	34.14	3.97	1.27	26.03	204.1	300.	9.76	34.44	26.58	153.2	0.909
250.	10.49	34.45*	2.23		26.46	163.7	400.	8.62	34.50	26.81	132.5	1.053
276.	10.43	34.46	0.98	2.06	26.48	162.5	500.	7.70	34.50	26.95	120.3	1.181
300.	9.76	34.44	0.89	2.35	26.58	153.2	600.	6.83	34.48	27.05	110.7	1.298
400.	8.62	34.50	0.37	2.68	26.81	132.5	700.	6.16	34.48	27.15	102.5	1.405
500.	7.70	34.50	0.37		26.95	120.3	800.	5.61	34.50	27.23	95.3	1.505
601.	6.82	34.48	0.50		27.06	110.6	1000.	4.60	34.52	27.36	82.9	1.686
802.	5.60	34.50	0.64	2.78	27.23	95.1	1200.	3.99	34.56	27.46	74.2	1.845
1001.	4.60	34.52	0.93	2.69	27.36	82.9						
1202.	3.99	34.56	1.19	2.85	27.46	74.1						
1486.	3.37	34.57	1.49	2.85	27.53	67.9						

ΔFROM BT DATA
*INTERPOLATED DATA
**EXTRAPOLATED DATA

Table 3.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 6, STATION 12, 17-30N LAT, 153-59W LONG, JULY 19, 1964, 0900 G.C.T.
DRY BULB 25.0 WET BULB 22.9 WIND SPEED 16, DIR. 07 BAR. 16 WEATHER 02 VIS. 7 CLOUD TYPE 8, COVER 3

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.19	34.69	5.22	0.22	23.07	480.7	0.	25.19	34.69	23.07	480.7	0.000
10.Δ	25.19	34.68	5.23	0.26	23.06	481.8	10.	25.19	34.68	23.06	481.8	0.048
30.Δ	25.20	34.68			23.06	482.9	20.	25.20	34.68	23.06	482.6	0.097
51.	25.10	34.68	5.23	0.22	23.09	480.8	30.	25.20	34.68	23.06	482.9	0.146
76.	23.92	34.69	5.47	0.30	23.45	447.2	50.	25.12	34.68	23.09	481.2	0.243
100.	23.10	34.89	5.48	0.23	23.84	410.9	75.	23.98	34.69	23.43	448.9	0.360
124.	22.26	35.04	5.50	0.19	24.20	378.0	100.	23.10	34.89	23.84	410.9	0.468
149.	21.63	35.15	5.42	0.23	24.45	354.2	150.	21.61	35.15	24.46	353.5	0.661
173.	20.72	35.12	5.20	0.84	24.68	333.4	200.	17.80	34.74	25.14	289.6	0.823
187.	19.30	34.92	4.91	0.40	24.90	312.5	250.	12.91	34.29	25.88	219.2	0.951
222.	15.33	34.49	4.24	0.81	25.53	253.3	300.	10.36	34.31	26.37	173.1	1.050
247.	13.15	34.31	4.18	0.91	25.85	222.5	400.	8.46	34.37	26.73	139.3	1.208
272.	11.41	34.22	3.80	1.24	26.11	197.2	500.	7.32	34.42	26.94	120.5	1.339
296.	10.48	34.30	2.54	1.76	26.34	175.5	600.	6.57	34.44	27.06	109.9	1.455
393.	8.56	34.37	1.28	2.42	26.71	141.0	700.	5.89	34.46	27.16	100.9	1.562
492.	7.39	34.42	0.72	2.74	26.93	121.5	800.	5.33	34.47	27.24	93.5	1.660
590.	6.64	34.44	0.63	2.73	27.05	110.9	1000.	4.50	34.51	27.37	82.1	1.838
785.	5.40	34.47	0.79	2.69	27.23	94.5	1200.	3.79	34.55	27.47	72.6	1.994
981.	4.58	34.51	1.08	2.97	27.36	83.1						
1167.	3.87	34.54	1.20	2.79	27.46	73.8						
1411.	3.23	34.58	1.62	2.91	27.55	64.9						

CROMWELL 6, STATION 13, 18-59N LAT, 153-59W LONG, JULY 19, 1964, 1800 G.C.T.
DRY BULB 24.0 WET BULB 22.5 WIND SPEED 19, DIR. 07 BAR. 18 WEATHER 91 VIS. 3 CLOUD TYPE 7, COVER 8

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.04	34.88	4.95	0.18	23.26	462.6	0.	25.04	34.88	23.26	462.6	0.000
9.	25.04	34.88	5.03	0.18	23.26	463.0	10.	25.04	34.88	23.26	463.1	0.047
30.Δ	25.00	34.88			23.27	462.6	20.	25.03	34.88	23.26	463.4	0.093
49.	24.81	34.92	5.10	0.21	23.36	455.0	30.	25.00	34.88	23.27	462.6	0.140
74.	23.63	35.00	5.33	0.36	23.77	416.7	50.	24.77	34.92	23.37	453.7	0.232
98.	22.67	34.98	5.31	0.27	24.03	392.5	75.	23.58	35.00	23.78	415.5	0.342
123.	22.26	35.09	5.22	0.20	24.23	374.4	100.	22.63	34.99	24.05	391.0	0.443
147.	21.49	35.14	5.05	0.22	24.49	351.1	150.	21.38	35.14	24.52	348.0	0.629
173.	20.43	35.13	4.83	0.23	24.77	325.2	200.	18.92	34.95	25.02	301.2	0.793
197.	19.74	35.06	4.73	0.30	24.89	313.3	250.	15.55	34.59	25.55	252.0	0.933
220.	17.55	34.78	4.63	0.42	25.23	281.7	300.	12.12	34.24	25.99	209.7	1.049
248.	15.70	34.60	4.73	0.50	25.53	254.0	400.	8.05	34.08	26.57	154.5	1.233
272.	13.94	34.42	4.75	0.63	25.77	230.9	500.	6.92	34.24	26.86	127.9	1.375
297.	12.30	34.25	4.94	0.84	25.97	211.9	600.	6.04	34.32	27.03	111.5	1.496
396.	8.13	34.08	3.70	1.91	26.55	155.9	700.	5.35	34.40	27.18	98.1	1.602
496.	6.96	34.24	1.35	2.39	26.85	128.7	800.	4.82	34.46	27.29	87.9	1.696
596.	6.07	34.32	0.72	2.81	27.03	112.1	1000.	4.07	34.52	27.42	76.3	1.862
796.	4.84	34.46	0.85	2.77	27.29	88.2	1200.	3.49	34.56	27.51	67.8	2.008
998.	4.08	34.52	1.03	2.92	27.42	76.4	1500.	2.78	34.60	27.61	58.6	2.200
1197.	3.54	34.56	1.26	2.78	27.50	68.5						
1500.	2.78	34.60	1.58	2.58	27.61	58.6						

CROMWELL 6, STATION 14, 20-28N LAT, 154- 2W LONG, JULY 20, 1964, 0300 G.C.T.
DRY BULB 24.9 WET BULB 21.9 WIND SPEED 18, DIR. 06 BAR. 17 WEATHER 01 VIS. 8 CLOUD TYPE 6, COVER 1

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.92	34.97	5.11	0.26	23.36	452.7	0.	24.92	34.97	23.36	452.7	0.000
11.Δ	24.85	34.97	5.19	0.20	23.39	451.1	10.	24.86	34.97	23.38	451.2	0.046
30.Δ	24.62	34.96			23.45	445.9	20.	24.75	34.97	23.41	448.7	0.091
51.	24.39	34.94	5.33	0.19	23.50	441.6	30.	24.62	34.96	23.45	445.9	0.136
76.	23.23	35.02	5.40	0.15	23.90	404.2	50.	24.41	34.94	23.50	442.1	0.225
101.	22.78	35.10	5.33	0.15	24.09	387.0	75.	23.28	35.02	23.89	405.8	0.332
125.	22.44	35.16	5.09	0.35	24.24	374.3	100.	22.79	35.10	24.09	387.4	0.432
151.	21.43	35.18	5.10	0.24	24.53	346.8	150.	21.48	35.18	24.52	348.0	0.617
176.	20.03	35.06	4.78	0.55	24.82	320.2	200.	18.67	34.93	25.07	297.0	0.780
191.	19.34	35.00	4.73		24.95	307.8	250.	15.59	34.58	25.54	252.8	0.919
223.	16.88	34.72	4.77	0.48	25.35	270.8	300.	12.45	34.29	25.97	211.7	1.036
251.	15.54	34.58	4.87	0.56	25.55	252.1	400.	8.61	34.08	26.48	163.2	1.225
276.	13.62	34.40	4.86	0.82	25.82	226.0	500.	6.69	34.10	26.77	135.5	1.376
301.	12.41	34.29	5.11	0.83	25.98	211.2	600.	5.54	34.20	27.00	114.1	1.502
402.	8.55	34.08	4.16	1.62	26.49	162.4	700.	5.01	34.33	27.16	99.0	1.609
501.	6.68	34.10	2.22	2.22	26.77	135.3	800.	4.75	34.44	27.28	88.5	1.704
600.	5.54	34.20	1.16	2.09	27.00	114.1	1000.	4.12	34.50	27.40	78.4	1.873
799.	4.75	34.44	0.95	2.55	27.28	88.6	1200.	3.58	34.54	27.49	70.2	2.023
998.	4.13	34.50	1.08	2.36	27.40	78.4						
1198.	3.58	34.54	1.29	2.67	27.48	70.5						
1499.	2.91	34.59	1.71	2.70	27.59	60.9						

ΔFROM BT DATA

Table 3.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 6, STATION 15, 21-59N LAT, 153-59W LONG, JULY 20, 1964, 1300 G.C.T.
DRY BULB 24.5 WET BULB 20.5 WIND SPEED 25, DIR. 07 BAR. 19 WEATHER 02 VIS. 6 CLOUD TYPE 6, COVER 7

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.85	34.97	5.16	0.32	23.39	450.6	0.	24.85	34.97	23.39	450.6	0.000
10.	24.84	34.98	5.20	0.20	23.40	450.0	10.	24.84	34.98	23.40	450.0	0.045
30.Δ	24.84	34.98			23.40	450.8	20.	24.84	34.98	23.40	450.5	0.091
51.	24.76	35.00	5.19	0.13	23.43	447.9	30.	24.84	34.98	23.40	450.8	0.136
76.	23.76	35.08	5.39		23.79	414.6	50.	24.77	35.00	23.43	448.3	0.227
99.	22.90	35.16	5.42		24.10	385.8	75.	23.81	35.08	23.78	416.2	0.336
124.	22.18	35.16	5.22	0.26	24.31	367.2	100.	22.87	35.16	24.11	385.0	0.436
149.	20.95	35.03	4.91	0.34	24.55	345.0	150.	20.90	35.03	24.56	343.8	0.620
173.	19.83	35.02	4.77	0.31	24.84	318.0	200.	18.66	34.92	25.07	297.2	0.782
187.	19.26	34.98	4.73	0.38	24.96	307.1	250.	15.52	34.55	25.53	253.9	0.921
219.	17.62	34.80	4.77	0.59	25.23	281.9	300.	12.65	34.28	25.92	216.5	1.039
246.	15.75	34.57	4.47	0.67	25.49	257.2	400.	9.28	34.13	26.41	170.3	1.234
270.	14.40	34.45	4.58	0.72	25.70	238.0	500.	6.90	34.08	26.73	139.8	1.391
294.	12.93	34.30	4.83	1.03	25.88	220.2	600.	5.56	34.14	26.95	119.0	1.522
390.	9.58	34.14	4.04	1.84	26.37	174.2	700.	4.84	34.25	27.12	102.4	1.633
488.	7.12	34.08	2.64	1.91	26.70	142.7	800.	4.47	34.38	27.26	89.9	1.731
585.	5.70	34.12	1.48	2.55	26.92	121.9	1000.	3.95	34.48	27.40	77.5	1.900
782.	4.53	34.36	0.90	2.61	27.24	91.6	1200.	3.45	34.53	27.49	69.6	2.049
977.	4.02	34.48	1.15	2.92	27.39	78.4						
1174.	3.48	34.50	1.41	2.09	27.46	72.1						
1435.	2.96	34.57	1.68		27.57	62.5						

CROMWELL 6, STATION 16, 23-32N LAT, 153-55W LONG, JULY 20, 1964, 2200 G.C.T.
DRY BULB 24.5 WET BULB 21.3 WIND SPEED 24, DIR. 06 BAR. 21 WEATHER 01 VIS. 7 CLOUD TYPE 6, COVER 5

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.80	34.87	5.24	0.23	23.32	456.4	0.	24.80	34.87	23.32	456.4	0.000
10.Δ	24.82	34.88	5.23		23.33	456.6	10.	24.82	34.88	23.33	456.6	0.046
30.Δ	24.82	34.88			23.33	457.4	20.	24.82	34.88	23.33	457.0	0.092
50.Δ	24.82	34.88			23.33	458.2	30.	24.82	34.88	23.33	457.4	0.138
76.	24.11	35.12	5.46	0.18	23.72	421.6	50.	24.82	34.88	23.33	458.2	0.230
101.	22.99	35.16	5.43	0.07	24.08	388.4	75.	24.15	35.11	23.70	423.4	0.341
125.	21.94	35.17	5.40	0.18	24.38	360.1	100.	23.04	35.16	24.06	389.7	0.444
151.	20.76	35.08	4.93	0.61	24.64	336.5	150.	20.80	35.08	24.63	337.4	0.627
177.	19.80	35.08	5.03	0.31	24.89	313.0	200.	18.48	34.91	25.10	294.0	0.786
192.	18.93	34.96	4.88	0.35	25.03	300.7	250.	15.15	34.54	25.60	246.8	0.922
225.	16.98	34.74	4.92	0.47	25.34	271.7	300.	12.21	34.24	25.98	210.9	1.038
252.	15.00	34.52	4.94	0.60	25.62	244.9	400.	9.18	34.07	26.38	173.2	1.232
278.	13.45	34.37	4.98	0.67	25.83	224.9	500.	6.67	34.03	26.72	140.4	1.390
302.	12.10	34.23	5.11	0.90	25.99	209.8	600.	5.37	34.09	26.94	119.7	1.521
403.	9.13	34.07	4.73	1.47	26.39	172.3	700.	4.73	34.23	27.12	102.7	1.634
504.	6.59	34.03	2.81	2.06	26.73	139.3	800.	4.39	34.37	27.27	89.4	1.731
605.	5.33	34.10	1.40	2.58	26.95	118.9	1000.	3.88	34.48	27.41	77.1	1.899
807.	4.38	34.38	1.10	2.75	27.28	88.6	1200.	3.41	34.54	27.50	68.5	2.047
1007.	3.87	34.48	1.26	2.89	27.41	76.9						
1209.	3.40	34.54	1.40	2.54	27.50	68.4						

CROMWELL 6, STATION 17, 23-27N LAT, 150-59W LONG, JULY 21, 1964, 1700 G.C.T.
DRY BULB 23.6 WET BULB 20.8 WIND SPEED 16, DIR. 05 BAR. 19 WEATHER 03 VIS. 7 CLOUD TYPE 6, COVER 2

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.46	34.92			23.46	443.0	0.	24.46	34.92	23.46	443.0	0.000
9.	24.47	34.93			23.47	442.9	10.	24.47	34.93	23.47	443.0	0.045
30.Δ	24.46	34.93			23.47	443.5	20.	24.47	34.93	23.47	443.3	0.089
50.Δ	24.40	34.94			23.50	441.8	30.	24.46	34.93	23.47	443.5	0.134
74.	22.78	35.29			24.24	372.2	50.	24.40	34.94	23.50	441.8	0.223
98.	22.01	35.27			24.44	353.7	75.	22.74	35.29	24.25	371.0	0.325
122.	21.25	35.26			24.64	335.2	100.	21.96	35.27	24.46	352.2	0.417
147.	19.87	35.05			24.85	315.9	150.	19.63	35.03	24.90	311.7	0.584
170.	18.03	34.87			25.18	284.8	200.	16.28	34.65	25.44	261.3	0.728
185.	17.18	34.76			25.31	273.5	250.	13.21	34.28	25.81	225.9	0.851
218.	15.13	34.52			25.59	246.7	300.	11.82	34.22	26.04	205.2	0.960
244.	13.37	34.30			25.80	227.5	400.	9.05	34.08	26.41	170.2	1.149
270.	12.82	34.25			25.87	221.1	500.	6.88	34.05	26.70	142.1	1.307
293.	12.04	34.23			26.00	208.4	600.	5.53	34.14	26.96	118.1	1.438
391.	9.28	34.09			26.38	173.0	700.	4.85	34.26	27.13	102.2	1.550
490.	7.06	34.04			26.68	144.8	800.	4.50	34.36	27.25	91.1	1.647
588.	5.64	34.13			26.93	120.4	1000.	3.91	34.49	27.41	76.7	1.817
784.	4.56	34.35			27.23	92.7	1200.	3.41	34.54	27.50	68.5	1.964
977.	3.97	34.48			27.40	77.8						
1178.	3.48	34.52			27.48	70.6						
1399.	2.99	34.56			27.56	63.4						

ΔFROM BT DATA

Table 3.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 6, STATION 18, 21-58N LAT, 151- OW LONG, JULY 22, 1964, 0200 G.C.T.
DRY BULB 23.8 WET BULB 21.8 WIND SPEED 18, DIR. 05 BAR. 16 WEATHER 01 VIS. 7 CLOUD TYPE 6, COVER 5

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.74	34.84			23.32	456.8	0.	24.74	34.84	23.32	456.8	0.000
10.	24.69	34.84			23.34	455.8	10.	24.69	34.84	23.34	455.8	0.046
50.	23.92	35.02			23.70	422.4	20.	24.58	34.87	23.39	450.5	0.092
75.	23.05	35.11			24.02	392.7	30.	24.41	34.91	23.48	443.1	0.137
100.	22.58	35.20			24.23	374.3	50.	23.92	35.02	23.70	422.4	0.224
125.	21.92	35.22			24.43	355.9	75.	23.05	35.11	24.02	392.7	0.326
151.	20.86	35.18			24.69	331.9	100.	22.58	35.20	24.23	374.3	0.423
176.	19.79	35.07			24.89	313.4	150.	20.90	35.18	24.68	332.8	0.601
190.	19.35	35.02			24.97	306.6	200.	18.91	34.96	25.04	300.2	0.761
223.	17.60	34.79			25.23	282.3	250.	15.71	34.55	25.49	257.9	0.901
250.	15.71	34.55			25.49	257.9	300.	12.33	34.24	25.95	213.5	1.020
275.	14.14	34.40			25.71	236.5	400.	8.85	34.07	26.43	167.9	1.213
299.	12.38	34.24			25.95	214.2	500.	6.74	34.04	26.72	140.4	1.368
398.	8.90	34.07			26.43	168.5	600.	5.55	34.16	26.97	116.8	1.498
498.	6.77	34.04			26.72	140.9	700.	5.02	34.29	27.14	101.6	1.609
597.	5.57	34.16			26.96	117.4	800.	4.76	34.40	27.25	91.4	1.706
795.	4.78	34.40			27.25	91.9	1000.	4.09	34.49	27.40	78.5	1.878
993.	4.11	34.49			27.39	78.9	1200.	3.53	34.55	27.50	69.4	2.028
1191.	3.56	34.54			27.49	70.2						
1490.	2.86	34.58			27.58	60.9						

CROMWELL 6, STATION 19, 20-27N LAT, 150-59W LONG, JULY 22, 1964, 1000 G.C.T.
DRY BULB 24.0 WET BULB 22.5 WIND SPEED 07, DIR. 07 BAR. 17 WEATHER 01 VIS. 5 CLOUD TYPE 8, COVER 5

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.39	34.94			23.50	439.6	0.	24.39	34.94	23.50	439.6	0.000
9.	24.40	34.94			23.50	440.2	10.	24.40	34.94	23.50	440.1	0.044
30.Δ	24.26	34.96			23.55	435.6	20.	24.35	34.95	23.52	438.6	0.089
50.Δ	24.00	34.98			23.65	427.6	30.	24.26	34.96	23.55	435.6	0.133
74.	22.90	35.11			24.07	388.5	50.	24.00	34.98	23.65	427.6	0.220
98.	22.16	35.21			24.35	362.1	75.	22.86	35.12	24.08	387.2	0.322
123.	21.54	35.22			24.53	345.8	100.	22.10	35.21	24.37	360.5	0.416
148.	21.16	35.28			24.68	332.4	150.	21.12	35.28	24.70	331.1	0.591
172.	20.42	35.25			24.86	316.3	200.	18.69	34.96	25.09	294.8	0.748
186.	19.64	35.12			24.97	306.4	250.	14.71	34.46	25.64	243.3	0.884
220.	17.18	34.74			25.29	276.1	300.	11.06	34.13	26.11	197.9	0.995
246.	15.15	34.51			25.58	248.7	400.	8.07	34.18	26.64	147.5	1.170
271.	12.56	34.22			25.90	218.4	500.	6.70	34.25	26.89	124.1	1.307
295.	11.28	34.14			26.08	201.2	600.	6.06	34.34	27.05	110.1	1.425
395.	8.17	34.18			26.63	149.1	700.	5.49	34.40	27.16	100.0	1.531
495.	6.74	34.25			26.88	124.9	800.	5.01	34.43	27.25	92.2	1.628
593.	6.10	34.34			27.04	110.9	1000.	4.26	34.50	27.39	79.8	1.802
790.	5.05	34.43			27.24	93.0	1200.	3.63	34.55	27.48	70.7	1.955
988.	4.30	34.50			27.38	80.4						
1187.	3.65	34.54			27.48	71.3						
1486.	3.03	34.58			27.57	63.0						

CROMWELL 6, STATION 20, 18-58N LAT, 150-59W LONG, JULY 22, 1964, 1900 G.C.T.
DRY BULB 24.8 WET BULB 23.2 WIND SPEED 07, DIR. 01 BAR. 15 WEATHER 15 VIS. 7 CLOUD TYPE 8, COVER 4

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.08	34.72			23.13	475.3	0.	25.08	34.72	23.13	475.3	0.000
10.Δ	25.01	34.72			23.15	473.7	10.	25.01	34.72	23.15	473.7	0.048
30.Δ	24.95	34.72			23.17	472.7	20.	24.98	34.72	23.16	473.1	0.095
50.Δ	24.84	34.72			23.20	470.3	30.	24.95	34.72	23.17	472.7	0.143
77.	22.72	34.71			23.81	412.5	50.	24.84	34.72	23.20	470.3	0.238
100.	21.95	34.96			24.22	374.6	75.	22.89	34.71	23.76	417.5	0.350
125.	21.08	35.16			24.61	338.1	100.	21.95	34.96	24.22	374.6	0.450
152.	19.60	35.02			24.90	311.5	150.	19.73	35.04	24.88	313.2	0.623
177.	17.91	34.79			25.15	288.0	200.	15.77	34.51	25.44	261.0	0.768
191.	16.55	34.60			25.33	271.0	250.	11.43	34.13	26.04	203.7	0.885
225.	13.68	34.30			25.73	233.1	300.	9.42	34.10	26.37	172.5	0.980
252.	11.27	34.12			26.06	201.6	400.	7.15	34.10	26.71	140.4	1.138
277.	10.19	34.13			26.26	182.7	500.	6.09	34.20	26.93	120.3	1.269
302.	9.36	34.10			26.38	171.8	600.	5.36	34.30	27.10	104.7	1.383
403.	7.10	34.10			26.72	139.7	700.	4.89	34.39	27.23	92.8	1.483
504.	6.06	34.20			26.93	119.6	800.	4.54	34.47	27.33	84.1	1.572
604.	5.34	34.30			27.10	104.2	1000.	3.96	34.51	27.42	75.6	1.733
805.	4.53	34.47			27.33	83.7	1200.	3.44	34.56	27.51	67.5	1.878
1006.	3.94	34.51			27.42	75.5	1500.	2.85	34.61	27.61	58.7	2.071
1206.	3.43	34.56			27.52	67.3						
1509.	2.83	34.61			27.61	58.5						

ΔFROM BT DATA

Table 3.--Continued

CROMWELL 6, STATION 21, 17-26N LAT, 151- 1W LONG, JULY 23, 1964, 0500 G.C.T.
DRY BULB 25.7 WET BULB 23.1 WIND SPEED 07, DIR. 05 BAR. 14 WEATHER 01 VIS. 8 CLOUD TYPE , COVER

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	CXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.88	34.76			22.91	495.9	0.	25.88	34.76	22.91	495.9	0.000
10.	25.44	34.78			23.06	481.9	10.	25.44	34.78	23.06	481.9	0.049
30.Δ	25.32	34.79			23.11	478.4	20.	25.37	34.79	23.09	479.9	0.098
50.	24.28	34.82			23.44	447.1	30.	25.32	34.79	23.11	478.4	0.146
76.	23.01	35.02			23.97	398.1	50.	24.28	34.82	23.44	447.1	0.239
100.	22.50	35.12			24.19	377.8	75.	23.05	35.01	23.95	399.8	0.346
126.	21.58	35.12			24.45	354.2	100.	22.50	35.12	24.19	377.8	0.444
151.	19.96	34.97			24.77	324.1	150.	20.04	34.98	24.75	325.4	0.621
175.	17.74	34.75			25.16	286.9	200.	15.35	34.44	25.49	256.4	0.768
190.	16.23	34.54			25.36	268.3	250.	11.80	34.20	26.03	205.0	0.884
225.	13.43	34.29			25.78	228.9	300.	10.05	34.27	26.40	170.2	0.979
251.	11.74	34.20			26.04	204.1	400.	8.30	34.33	26.72	140.1	1.135
277.	10.52	34.22			26.27	181.7	500.	7.47	34.44	26.93	121.6	1.267
302.	10.02	34.28			26.41	169.4	600.	6.46	34.43	27.07	109.2	1.384
402.	8.27	34.33			26.73	139.7	700.	5.75	34.45	27.17	99.6	1.489
504.	7.44	34.44			26.94	121.0	800.	5.22	34.48	27.26	91.7	1.586
604.	6.42	34.43			27.07	108.8	1000.	4.24	34.50	27.38	79.8	1.759
805.	5.20	34.48			27.26	91.4	1200.	3.66	34.54	27.48	71.6	1.913
1007.	4.21	34.50			27.39	79.5	1500.	2.87	34.58	27.58	61.2	2.115
1208.	3.64	34.54			27.48	71.3						
1510.	2.85	34.58			27.59	60.9						

CROMWELL 6, STATION 22, 15-59N LAT, 150-59W LONG, JULY 23, 1964, 1400 G.C.T.
DRY BULB 25.8 WET BULB 22.9 WIND SPEED 14, DIR. 11 BAR. 13 WEATHER 01 VIS. 7 CLOUD TYPE 4, COVER 1

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.03	34.68			22.80	506.1	0.	26.03	34.68	22.80	506.1	0.000
9.	25.97	34.68			22.82	504.7	10.	25.96	34.68	22.82	504.6	0.051
47.	25.63	34.68			22.93	496.1	20.	25.88	34.67	22.84	503.2	0.102
72.	25.36	34.78			23.09	482.0	30.	25.80	34.67	22.87	501.2	0.152
95.	22.88	35.00			23.99	396.7	50.	25.67	34.69	22.92	496.9	0.253
118.	22.24	35.13			24.27	370.8	75.	25.04	34.81	23.20	470.9	0.375
143.	20.64	35.12			24.70	330.2	100.	22.70	35.04	24.07	389.1	0.483
167.	18.70	34.94			25.07	295.7	150.	20.07	35.08	24.82	319.2	0.661
182.	17.69	34.83			25.24	280.1	200.	15.44	34.54	25.54	251.6	0.805
214.	13.58	34.31			25.76	230.1	250.	11.20	34.27	26.19	189.3	0.917
240.	11.52	34.20			26.08	199.9	300.	9.89	34.40	26.52	158.6	1.004
264.	10.91	34.38			26.33	176.4	400.	8.53	34.51	26.83	130.3	1.150
288.	10.14	34.38			26.46	163.7	500.	7.17	34.44	26.97	117.1	1.275
385.	8.76	34.52			26.80	133.0	600.	6.26	34.46	27.12	104.0	1.387
483.	7.37	34.44			26.95	119.6	700.	5.68	34.49	27.21	96.0	1.488
579.	6.41	34.46			27.09	106.1	800.	5.24	34.51	27.28	90.0	1.582
771.	5.38	34.50			27.26	91.8	1000.	4.40	34.53	27.39	79.3	1.753
966.	4.53	34.53			27.38	80.9	1200.	3.72	34.56	27.49	70.9	1.905
1160.	3.86	34.55			27.46	72.9						
1452.	3.06	34.59			27.57	62.4						

TEMPERATURE ERROR TERM AT 200. METERS IS 0.18

CROMWELL 6, STATION 23, 14-28N LAT, 150-59W LONG, JULY 23, 1964, 2200 G.C.T.
DRY BULB 26.2 WET BULB 23.1 WIND SPEED 08, DIR. 09 BAR. 15 WEATHER 02 VIS. 8 CLOUD TYPE 8, COVER 3

DEPTH	TEMP.	SAL.	CXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.48	34.46			22.50	535.4	0.	26.48	34.46	22.50	535.4	0.000
10.	26.25	34.44			22.55	530.4	10.	26.25	34.44	22.55	530.4	0.054
30.Δ	26.14	34.45			22.60	527.2	20.	26.17	34.44	22.58	528.2	0.107
50.Δ	26.04	34.47			22.64	523.5	30.	26.14	34.45	22.60	527.2	0.160
76.	24.98	34.58			23.05	485.5	50.	26.04	34.47	22.64	523.5	0.266
100.	22.85	34.82			23.86	409.0	75.	25.04	34.57	23.03	487.7	0.393
126.	21.62	35.02			24.36	362.4	100.	22.85	34.82	23.86	409.0	0.506
151.	19.52	34.91			24.84	317.4	150.	19.61	34.92	24.82	319.1	0.690
176.	17.39	34.72			25.23	281.0	200.	14.32	34.41	25.68	237.4	0.830
190.	15.56	34.50			25.48	256.5	250.	10.98	34.41	26.34	175.1	0.934
224.	12.02	34.34			26.09	198.3	300.	9.76	34.49	26.61	149.6	1.016
249.	11.02	34.41			26.33	175.8	400.	8.28	34.46	26.83	130.2	1.157
276.	10.08	34.40			26.49	161.0	500.	7.14	34.45	26.99	115.8	1.281
300.	9.76	34.49			26.61	149.6	600.	6.44	34.48	27.11	105.3	1.393
401.	8.27	34.46			26.83	130.1	700.	5.82	34.50	27.20	96.6	1.495
501.	7.13	34.45			26.99	115.7	800.	5.29	34.52	27.28	89.6	1.589
601.	6.43	34.48			27.11	105.2	1000.	4.47	34.54	27.39	79.7	1.760
801.	5.29	34.52			27.28	89.6	1200.	3.84	34.57	27.48	71.5	1.914
1000.	4.47	34.54			27.39	79.7						
1200.	3.84	34.57			27.48	71.5						
1499.	3.03	34.60			27.59	61.6						

ΔFROM BT DATA

Table 3.--Continued

CROMWELL 6, STATION 24, 13- 2N LAT, 151- 4W LONG, JULY 24, 1964, 0700 G.C.T.
DRY BULB 26.5 WET BULB 24.0 WIND SPEED 13, DIR. 07 BAR. 14 WEATHER 02 VIS. 8 CLOUD TYPE 8, COVER 2

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.49	34.30			22.37	547.2	0.	26.49	34.30	22.37	547.2	0.000
9.	26.47	34.31			22.39	546.3	10.	26.44	34.31	22.40	545.6	0.055
49.	24.26	34.40			23.13	476.7	20.	26.06	34.30	22.51	535.5	0.109
76.	22.44	34.84			23.99	395.5	30.	25.56	34.31	22.67	520.0	0.163
100.	20.02	34.98			24.76	323.0	50.	24.20	34.42	23.16	474.0	0.263
124.	17.48	34.72			25.20	281.4	75.	22.52	34.82	23.96	398.8	0.373
151.	12.99	34.30			25.87	217.7	100.	20.02	34.98	24.76	323.0	0.464
174.	11.35	34.28			26.17	189.4	150.	13.15	34.31	25.85	219.7	0.600
190.	11.07	34.36			26.28	179.0	200.	11.01	34.44	26.36	172.1	0.699
223.	10.94	34.62			26.51	158.3	250.	10.71	34.70	26.61	149.1	0.780
250.	10.71	34.70			26.61	149.1	300.	10.12	34.68	26.70	141.6	0.853
275.	10.45	34.70			26.66	145.2	400.	8.86	34.61	26.86	128.2	0.989
300.	10.12	34.68			26.70	141.6	500.	7.70	34.55	26.99	116.6	1.113
401.	8.85	34.61			26.86	128.0	600.	6.73	34.52	27.10	106.3	1.226
502.	7.68	34.5[illegible]			26.99	116.4	700.	6.00	34.52	27.20	97.5	1.329
602.	6.71	34.52			27.10	106.1	800.	5.43	34.54	27.28	89.9	1.423
802.	5.42	34.54			27.28	89.8	1000.	4.52	34.56	27.40	78.9	1.594
1002.	4.51	34.56			27.40	78.8	1200.	3.85	34.58	27.49	70.8	1.746
1202.	3.84	34.58			27.49	70.8	1500.	3.14	34.60	27.57	63.0	1.949
1503.	3.14	34.60			27.57	63.0						

TEMPERATURE ERROR TERM AT 30. METERS IS 0.12

CROMWELL 6, STATION 25, 11-30N LAT, 151- 0W LONG, JULY 24, 1964, 1600 G.C.T.
DRY BULB 26.6 WET BULB 24.6 WIND SPEED 17, DIR. 05 BAR. 13 WEATHER 03 VIS. 7 CLOUD TYPE 8, COVER 3

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	27.17	34.07			21.99	584.4	0.	27.17	34.07	21.99	584.4	0.000
9.	27.19	34.06			21.97	586.1	10.	27.19	34.06	21.97	586.3	0.059
30.Δ	27.20	34.06			21.97	587.3	20.	27.21	34.06	21.96	587.3	0.118
50.Δ	27.10	34.08			22.02	583.6	30.	27.20	34.06	21.97	587.3	0.177
75.	21.67	34.50			23.95	399.4	50.	27.10	34.08	22.02	583.6	0.295
99.	13.20	34.38			25.89	214.5	75.	21.67	34.50	23.95	399.4	0.419
125.	11.71	34.52			26.29	177.1	100.	13.05	34.38	25.92	211.6	0.496
151.	11.75	34.71			26.43	164.5	150.	11.74	34.70	26.43	164.7	0.591
175.	11.05	34.66			26.52	156.2	200.	10.65	34.67	26.60	149.2	0.670
190.	10.88	34.68			26.57	152.1	250.	9.82	34.63	26.71	139.2	0.743
223.	10.10	34.63			26.67	143.3	300.	9.25	34.60	26.78	133.2	0.811
250.	9.82	34.63			26.71	139.2	400.	8.24	34.56	26.91	122.2	0.940
276.	9.56	34.62			26.75	136.2	500.	7.20	34.53	27.04	110.8	1.058
300.	9.25	34.60			26.78	133.2	600.	6.33	34.52	27.15	100.8	1.164
401.	8.23	34.56			26.91	122.1	700.	5.65	34.52	27.24	92.9	1.262
502.	7.18	34.53			27.04	110.5	800.	5.11	34.53	27.31	86.6	1.353
602.	6.31	34.52			27.15	100.6	1000.	4.30	34.54	27.41	77.7	1.519
803.	5.10	34.53			27.31	86.4	1200.	3.65	34.56	27.49	70.1	1.669
1004.	4.29	34.54			27.41	77.5						
1194.	3.69	34.56			27.49	70.3						
1413.	3.08	34.58			27.56	63.1						

CROMWELL 6, STATION 26, 9-58N LAT, 147-58W LONG, JULY 25, 1964, 1100 G.C.T.
DRY BULB 25.4 WET BULB 24.0 WIND SPEED 12, DIR. 16 BAR. 15 WEATHER 15 VIS. 7 CLOUD TYPE 6, COVER 6

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	27.02	34.06	4.92	0.24	22.03	580.6	0.	27.02	34.06	22.03	580.6	0.000
10.	26.98	34.06	5.02	0.28	22.04	579.8	10.	26.98	34.06	22.04	579.8	0.058
20.Δ	26.88	34.06			22.07	577.1	20.	26.88	34.06	22.07	577.1	0.117
30.Δ	26.80	34.09			22.12	572.9	30.	26.80	34.09	22.12	572.9	0.175
51.	25.51	34.42	5.20	1.16	22.77	511.5	50.	25.61	34.40	22.73	515.7	0.284
76.	21.57	34.59	5.38	0.58	24.05	390.3	75.	21.76	34.59	23.99	395.5	0.399
102.	16.14	34.42	4.04	1.07	25.29	272.3	100.	16.54	34.43	25.21	280.3	0.484
126.	13.09	34.62	0.88	1.88	26.10	195.5	150.	11.78	34.70	26.41	166.0	0.597
153.	11.70	34.70	0.90	2.30	26.43	164.3	200.	10.89	34.72	26.60	149.7	0.676
176.	11.22	34.72	0.66	2.12	26.54	154.8	250.	10.26	34.72	26.71	139.9	0.749
192.	11.00	34.72	0.32	2.41	26.58	151.3	300.	9.82	34.70	26.77	135.1	0.819
226.	10.56	34.72	0.56	2.34	26.66	144.5	400.	8.93	34.65	26.88	126.1	0.950
252.	10.24	34.72	0.48	2.48	26.71	139.6	500.	7.72	34.57	27.00	115.7	1.072
278.	9.99	34.70	0.63	2.38	26.74	137.5	600.	6.68	34.53	27.11	104.8	1.184
304.	9.79	34.70	0.67	2.14	26.77	134.7	700.	5.83	34.52	27.22	95.3	1.285
404.	8.89	34.65	0.24	2.47	26.88	125.8	800.	5.15	34.53	27.31	87.1	1.377
507.	7.63	34.56	0.35	2.47	27.00	115.0	1000.	4.18	34.56	27.44	74.8	1.541
607.	6.61	34.53	0.58	2.38	27.12	104.1	1200.	3.56	34.59	27.53	66.7	1.684
809.	5.10	34.53	0.90	2.79	27.31	86.5	1500.	2.81	34.61	27.61	58.2	1.874
1011.	4.14	34.56	1.34	2.90	27.44	74.3						
1212.	3.53	34.59	1.70	2.57	27.53	66.3						
1515.	2.78	34.61	1.90	2.52	27.62	57.9						

ΔFROM BT DATA

Table 3.--Continued

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					

CROMWELL 6, STATION 27, 11-25N LAT, 147-58W LONG, JULY 25, 1964, 2000 G.C.T.
DRY BULB 24.9 WET BULB 24.0 WIND SPEED 12, DIR. 06 BAR. 16 WEATHER 20 VIS. 4 CLOUD TYPE 9, COVER 9

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.90	33.88	4.85	0.25	21.93	589.9	0.	26.90	33.88	21.93	589.9	0.000
9.	26.87	33.89	5.08	0.46	21.95	588.6	10.	26.87	33.90	21.95	588.2	0.059
30.Δ	26.60	34.14			22.22	563.3	20.	26.80	33.99	22.04	579.6	0.118
50.Δ	25.50	34.51			22.84	504.7	30.	26.60	34.14	22.22	563.3	0.176
48.	25.54	34.51	5.13	0.70	22.83	505.8	50.	25.50	34.51	22.84	504.7	0.283
72.	21.18	34.61	5.34	0.30	24.17	378.5	75.	20.53	34.59	24.33	363.4	0.393
95.	16.49	34.43	3.51	1.07	25.22	279.1	100.	15.70	34.41	25.38	263.6	0.472
117.	13.58	34.38	2.01	1.31	25.81	222.4	150.	11.57	34.49	26.30	177.0	0.583
142.	11.84	34.44	1.21	2.03	26.20	185.7	200.	10.78	34.64	26.55	153.6	0.666
163.	11.32	34.58	0.41	1.72	26.41	166.6	250.	10.13	34.62	26.65	144.9	0.741
176.	11.19	34.62	0.34		26.46	161.6	300.	9.66	34.62	26.73	138.2	0.813
206.	10.68	34.64	0.26	2.49	26.57	152.0	400.	8.39	34.55	26.88	125.5	0.946
230.	10.46	34.64	0.19	2.03	26.61	148.7	500.	7.31	34.52	27.02	113.4	1.066
253.	10.08	34.62	0.18		26.66	144.3	600.	6.44	34.52	27.14	102.4	1.175
278.	9.90	34.63	0.16		26.70	141.1	700.	5.69	34.52	27.23	93.5	1.274
365.	8.82	34.57	0.25		26.83	129.8	800.	5.08	34.53	27.31	86.4	1.365
454.	7.76	34.52	0.42		26.95	118.9	1000.	4.22	34.56	27.43	75.5	1.529
544.	6.92	34.52	0.42	2.26	27.07	108.2	1200.	3.52	34.59	27.53	66.4	1.673
723.	5.53	34.52	0.65	2.87	27.25	91.8						
904.	4.59	34.54	0.94	3.08	27.38	80.3						
1083.	3.94	34.57	1.30	2.60	27.47	71.7						
1285.	3.28	34.60	1.66	2.65	27.56	63.1						

CROMWELL 6, STATION 28, 12-59N LAT, 148- 6W LONG, JULY 26, 1964, 0600 G.C.T.
DRY BULB 26.3 WET BULB 23.0 WIND SPEED 19, DIR. 05 BAR. 14 WEATHER 01 VIS. 8 CLOUD TYPE 4, COVER 3

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.74	34.14	4.96	0.27	22.17	566.3	0.	26.74	34.14	22.17	566.3	0.000
10.	26.73	34.14	5.05	0.24	22.18	566.4	10.	26.73	34.14	22.18	566.4	0.057
20.Δ	26.73	34.14			22.18	566.8	20.	26.73	34.14	22.18	566.8	0.114
30.Δ	25.30	34.50			22.89	498.7	30.	25.30	34.50	22.89	498.7	0.168
51.	25.04	34.54	5.26	0.24	23.00	489.1	50.	25.02	34.55	23.02	487.9	0.267
78.	23.44	34.63	5.49	0.26	23.55	438.2	75.	23.68	34.62	23.47	445.5	0.385
103.	21.01	34.70	4.92	0.28	24.28	368.7	100.	21.34	34.70	24.19	377.6	0.488
126.	18.30	34.66	4.34	0.77	24.96	305.0	150.	13.30	34.30	25.81	223.3	0.640
153.	12.74	34.27	2.74	1.64	25.90	215.2	200.	11.47	34.66	26.45	163.9	0.737
178.	12.04	34.59	0.76	2.88	26.28	179.2	250.	10.29	34.63	26.64	146.8	0.816
193.	11.73	34.67	0.83	2.45	26.40	168.1	300.	9.85	34.65	26.72	139.6	0.888
227.	10.52	34.60	0.58	2.30	26.57	152.6	400.	8.68	34.59	26.87	126.7	1.022
253.	10.28	34.64	0.72	2.41	26.64	146.2	500.	7.67	34.54	26.99	116.6	1.145
280.	10.09	34.66	0.69	2.22	26.69	142.1	600.	6.75	34.52	27.10	106.6	1.258
305.	9.78	34.64	0.73	2.30	26.73	138.9	700.	5.94	34.52	27.20	97.0	1.361
406.	8.62	34.59	0.67	2.44	26.88	126.0	800.	5.26	34.53	27.29	88.5	1.454
509.	7.58	34.54	0.91	2.43	27.00	115.7	1000.	4.31	34.56	27.42	76.4	1.621
609.	6.67	34.52	0.79	2.52	27.11	105.7	1200.	3.70	34.58	27.50	69.1	1.769
811.	5.19	34.53	0.64	2.57	27.30	87.6	1500.	2.96	34.60	27.59	60.8	1.966
1014.	4.26	34.56	0.94	2.65	27.43	75.8						
1216.	3.66	34.58	1.47	2.81	27.51	68.7						
1520.	2.93	34.60	1.96	2.69	27.59	60.5						

TEMPERATURE ERROR TERM AT 15C. METERS IS 0.12

CROMWELL 6, STATION 29, 14-41N LAT, 148- 7W LONG, JULY 26, 1964, 1600 G.C.T.
DRY BULB 25.2 WET BULB 21.5 WIND SPEED 16, DIR. 05 BAR. 14 WEATHER 02 VIS. 7 CLOUD TYPE 8, COVER 6

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	25.64	34.58	5.14	0.27	22.85	501.8	0.	25.64	34.58	22.85	501.8	0.000
9.	25.66	34.57	5.05		22.84	503.4	10.	25.66	34.57	22.84	503.5	0.051
30.Δ	25.65	34.57			22.84	504.0	20.	25.66	34.57	22.83	504.1	0.101
50.Δ	25.60	34.57			22.85	503.3	30.	25.65	34.57	22.84	504.0	0.152
73.	25.04	34.56	5.24	0.23	23.02	488.5	50.	25.60	34.57	22.85	503.3	0.254
98.	22.87	34.64	5.39	0.23	23.72	422.5	75.	24.88	34.56	23.07	483.9	0.378
121.	21.51	34.82	5.22		24.24	373.8	100.	22.78	34.66	23.76	418.7	0.492
146.	17.44	34.62	4.29	0.76	25.14	288.4	150.	16.88	34.57	25.23	279.2	0.667
170.	14.54	34.39	3.67	1.10	25.62	242.5	200.	12.39	34.39	26.06	200.7	0.788
183.	13.52	34.40	1.86	1.73	25.84	221.5	250.	10.70	34.49	26.45	164.4	0.880
217.	11.54	34.40	1.59		26.23	185.0	300.	9.70	34.50	26.63	147.9	0.959
243.	10.82	34.48	1.13	2.25	26.42	167.0	400.	9.03	34.60	26.82	131.8	1.100
268.	10.41	34.50	0.99		26.51	159.0	500.	7.85	34.55	26.97	118.5	1.227
291.	9.81	34.49	0.83	2.53	26.61	150.2	600.	6.97	34.52	27.06	109.9	1.342
390.	9.15	34.60	0.33	2.70	26.80	133.3	700.	6.17	34.51	27.16	101.1	1.449
488.	7.97	34.56	0.40	2.44	26.95	119.7	800.	5.50	34.51	27.25	92.9	1.547
588.	7.07	34.52	0.42	2.67	27.05	111.0	1000.	4.54	34.54	27.39	80.5	1.722
783.	5.60	34.51	1.08		27.24	94.2	1200.	3.83	34.56	27.48	71.8	1.876
982.	4.61	34.54	0.99	2.77	27.38	81.3						
1179.	3.93	34.56	1.26	2.83	27.47	73.2						
1476.	3.17	34.59	1.99	3.11	27.56	63.9						

ΔFROM BT DATA

Table 3.--Continued

CROMWELL 6, STATION 30, 15-59N LAT, 147-58W LONG, JULY 27, 1964, 0000 G.C.T.
DRY BULB 25.6 WET BULB 21.5 WIND SPEED 18, DIR. 05 BAR. 14 WEATHER 01 VIS. 8 CLOUD TYPE 6, COVER 2

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA				
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.94	34.52	5.02	0.31	22.71	515.0	0.	25.94	34.52	22.71	515.0	0.000
9.	25.93	34.52	5.07	0.22	22.71	515.0	10.	25.92	34.52	22.72	514.9	0.052
71.	25.11	34.57	5.11	0.27	23.00	489.8	20.	25.86	34.53	22.74	512.8	0.104
93.	24.66	34.58	5.20	0.34	23.15	476.9	30.	25.76	34.53	22.78	509.9	0.155
117.	22.32	34.56	5.34	0.45	23.81	414.0	50.	25.50	34.55	22.87	501.7	0.257
141.	19.52	34.70	4.91	0.43	24.68	332.2	75.	25.09	34.57	23.01	489.2	0.382
164.	16.06	34.46	3.31	0.98	25.34	269.5	100.	24.10	34.57	23.31	462.1	0.502
177.	14.17	34.35	3.11	1.44	25.67	238.0	150.	18.20	34.62	24.95	306.1	0.695
209.	11.73	34.20	3.43	1.56	26.04	202.9	200.	12.18	34.22	25.97	209.7	0.825
235.	10.82	34.30	2.11	1.62	26.28	180.1	250.	10.39	34.33	26.38	171.2	0.921
258.	10.21	34.34	1.68	2.28	26.42	167.2	300.	9.65	34.47	26.62	149.0	1.002
281.	9.90	34.44	1.18	2.29	26.55	155.2	400.	8.40	34.47	26.82	131.3	1.143
395.	8.46	34.47	0.54	2.59	26.81	132.2	500.	7.21	34.45	26.98	116.8	1.269
494.	7.27	34.45	0.53	3.07	26.97	117.6	600.	6.34	34.46	27.10	105.5	1.381
593.	6.40	34.46	0.51	2.88	27.10	106.1	700.	5.72	34.48	27.20	97.2	1.483
623.*	6.17	34.46	0.47	2.41	27.13	103.4	800.	5.26	34.50	27.27	90.5	1.578
789.	5.31	34.50	0.76	2.46	27.26	91.2	1000.	4.48	34.52	27.37	81.4	1.752
990.	4.45	34.52	1.20	2.69	27.38	80.9	1200.	3.60	34.57	27.51	68.6	1.904
1188.	3.81	34.56	1.26	2.69	27.48	71.8						
1200.**	3.60**	34.57**			27.51	68.6						

CROMWELL 6, STATION 31, 17-31N LAT, 147-58W LONG, JULY 27, 1964, 1000 G.C.T.
DRY BULB 24.5 WET BULB 21.2 WIND SPEED 20, DIR. 05 BAR. 16 WEATHER 03 VIS. CLOUD TYPE , COVER 7

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.24	34.62	5.03	0.45	23.00	487.2	0.	25.24	34.62	23.00	487.2	0.000
11.	25.27	34.62	5.05	0.30	22.99	488.5	10.	25.27	34.62	22.99	488.4	0.049
50.Δ	25.00	34.64			23.09	480.7	20.	25.32	34.62	22.98	490.5	0.098
76.	23.71	34.72	5.32	0.16	23.54	439.2	30.	25.30	34.62	22.98	490.1	0.148
101.	22.48	34.96	5.26	0.17	24.07	388.9	50.	25.00	34.64	23.09	480.7	0.246
125.	21.80	35.07	5.01	0.26	24.35	363.6	75.	23.77	34.71	23.52	441.1	0.362
151.	20.78	35.09	5.10	0.26	24.64	336.3	100.	22.52	34.95	24.05	390.7	0.466
176.	18.90	34.88	4.55	0.50	24.97	305.2	150.	20.83	35.09	24.63	337.4	0.650
190.	17.71	34.73	4.34	0.65	25.16	288.1	200.	16.47	34.59	25.34	270.5	0.803
224.	13.57	34.29	3.57	1.21	25.75	231.6	250.	11.93	34.21	26.01	206.9	0.924
252.	11.84	34.21	3.06	1.62	26.03	205.2	300.	9.83	34.24	26.41	169.3	1.018
277.	10.53	34.21	2.96	1.58	26.26	182.6	400.	8.74	34.46	26.75	137.5	1.173
301.	9.81	34.24	2.56	2.04	26.41	168.8	500.	7.73	34.49	26.93	121.5	1.304
401.	8.74	34.46	0.57	2.50	26.76	137.4	600.	6.63	34.46	27.07	109.4	1.420
502.	7.71	34.49	0.25	2.81	26.94	121.2	700.	5.89	34.47	27.17	100.1	1.526
602.	6.61	34.46	0.42	2.66	27.07	109.2	800.	5.36	34.49	27.25	92.8	1.624
803.	5.35	34.49	0.73	2.94	27.25	92.6	1000.	4.47	34.51	27.37	82.0	1.801
1004.	4.46	34.51	0.98	2.74	27.37	81.9	1200.	3.79	34.54	27.46	73.2	1.958
1204.	3.78	34.54	1.18	2.83	27.46	73.0						
1438.	3.04	34.58	1.52	2.69	27.57	62.8						

TEMPERATURE ERROR TEMP AT 200. METERS IS 0.14

CROMWELL 6, STATION 32, 19- 2N LAT, 148- 0W LONG, JULY 27, 1964, 1800 G.C.T.
DRY BULB 25.2 WET BULB 22.2 WIND SPEED 20, DIR. 05 BAR. 15 WEATHER 01 VIS. 8 CLOUD TYPE 8, COVER 4

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.26	34.67	5.12	0.22	23.03	484.1	0.	25.26	34.67	23.03	484.1	0.000
11.Δ	25.28	34.67	5.15	0.24	23.03	485.2	10.	25.28	34.67	23.03	485.1	0.049
30.Δ	25.28	34.68			23.04	485.2	20.	25.29	34.67	23.03	485.3	0.098
50.Δ	25.24	34.68			23.05	484.8	30.	25.28	34.68	23.04	485.2	0.147
77.	24.70	34.69	5.15	0.17	23.22	469.5	50.	25.24	34.68	23.05	484.8	0.244
102.	22.99	34.97	5.41	0.27	23.93	402.1	75.	24.77	34.68	23.19	472.0	0.365
126.	22.33	35.06	5.36	0.23	24.19	378.5	100.	23.13	34.95	23.88	407.6	0.476
151.	21.45	35.16	5.25	0.19	24.51	348.8	150.	21.50	35.16	24.50	350.1	0.666
176.	19.52	35.00	4.75	0.48	24.91	311.8	200.	17.76	34.76	25.16	287.6	0.827
191.	18.54	34.87	4.64	0.35	25.06	297.7	250.	12.83	34.23	25.85	222.6	0.956
225.	15.30	34.44	4.06	1.02	25.49	256.4	300.	10.44	34.18	26.26	183.7	1.058
251.	12.74	34.22	3.96	1.11	25.86	221.3	400.	7.87	34.22	26.70	141.9	1.223
277.	11.28	34.20	3.75	1.37	26.12	196.4	500.	6.50	34.31	26.96	117.4	1.353
301.	10.41	34.18	3.43	1.71	26.26	183.3	600.	5.69	34.38	27.12	102.8	1.465
402.	7.83	34.22	1.91	2.13	26.71	141.2	700.	5.16	34.43	27.23	93.3	1.564
502.	6.48	34.31	0.88	2.77	26.97	117.0	800.	4.77	34.47	27.30	86.7	1.655
603.	5.67	34.38	0.68	2.77	27.13	102.4	1000.	4.13	34.52	27.41	77.1	1.820
804.	4.76	34.47	0.88		27.30	86.5	1200.	3.57	34.54	27.49	70.5	1.970
1004.	4.12	34.52	1.33	2.75	27.41	76.9	1500.	2.87	34.57	27.58	61.9	2.171
1205.	3.56	34.54	1.42	2.57	27.49	70.3						
1506.	2.86	34.57	1.74	2.78	27.58	61.8						

ΔFROM BT DATA
*INTERPOLATED DATA
**EXTRAPOLATED DATA

Table 3.--Continued

CROMWELL 6, STATION 33, 20-30N LAT, 147-58W LONG, JULY 28, 1964, 0300 G.C.T.
DRY BULB 25.0 WET BULB 21.1 WIND SPEED 23, DIR. 06 BAR. 16 WEATHER 03 VIS. 7 CLOUD TYPE 6, COVER 8

ORIGINAL DATA				DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	24.81	34.85	5.04	0.09	23.31	458.2	0.	24.81	34.85	23.31	458.1	0.000
10.	24.82	34.85	5.11	0.18	23.30	458.8	10.	24.82	34.85	23.30	458.8	0.046
20.Δ	24.82	34.85			23.30	459.2	20.	24.82	34.85	23.30	459.2	0.092
30.Δ	24.82	34.85			23.30	459.6	30.	24.82	34.85	23.30	459.6	0.139
49.	24.15	35.10	5.34		23.69	423.1	50.	24.08	35.10	23.72	420.7	0.227
73.	22.38	35.14	5.49	0.23	24.24	372.1	75.	22.30	35.14	24.26	369.9	0.327
98.	21.70	35.18	5.34	0.20	24.46	352.0	100.	21.66	35.19	24.47	350.5	0.418
123.	21.11	35.23	5.24	0.27	24.66	333.8	150.	19.98	35.10	24.86	314.9	0.585
148.	20.06	35.11	4.26	0.29	24.85	316.4	200.	17.47	34.78	25.25	279.0	0.735
173.	18.91	34.98	4.18	0.52	25.05	298.1	250.	13.33	34.29	25.80	227.5	0.863
186.	18.20	34.88	4.70	0.57	25.15	288.7	300.	10.58	34.14	26.20	189.3	0.968
219.	16.26	34.63	4.73	0.55	25.42	263.3	400.	7.86	34.08	26.59	152.0	1.140
246.	13.73	34.33	4.87	0.68	25.74	232.5	500.	6.19	34.13	26.86	126.6	1.281
271.	11.57	34.15	4.74		26.03	205.2	600.	5.71	34.31	27.06	108.3	1.399
296.	10.71	34.14	4.73	1.17	26.18	191.3	700.	5.21	34.40	27.19	96.4	1.503
396.	7.95	34.08	3.18	2.09	26.58	153.3	800.	4.76	34.44	27.28	88.4	1.596
495.	6.23	34.12	1.72	1.90	26.85	127.6	1000.	4.14	34.52	27.41	77.1	1.764
594.	5.74	34.30	0.72	3.23	27.05	109.2	1200.	3.57	34.55	27.50	69.3	1.912
794.	4.78	34.44	0.81		27.28	88.9						
994.	4.16	34.52	1.04	2.56	27.41	77.3						
1194.	3.59	34.54	1.21	2.81	27.48	70.6						
1459.	2.86	34.58	1.63	2.95	27.58	60.8						

CROMWELL 6, STATION 34, 22- 1N LAT, 147-57W LONG, JULY 28, 1964, 1200 G.C.T.
DRY BULB 23.5 WET BULB 19.8 WIND SPEED 20, DIR. 07 BAR. 17 WEATHER 02 VIS. 6 CLOUD TYPE 6, COVER 7

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.09	34.96	5.23	0.36	23.61	429.6	0.	24.09	34.96	23.61	429.6	0.000
10.Δ	24.13	34.96	5.29		23.59	431.1	10.	24.13	34.96	23.59	431.1	0.043
20.Δ	24.12	34.96			23.60	431.2	20.	24.12	34.96	23.60	431.2	0.087
30.Δ	24.10	34.96			23.60	431.1	30.	24.10	34.96	23.60	431.1	0.130
50.	22.32	35.06	5.61	0.18	24.19	375.4	50.	22.32	35.06	24.19	375.4	0.211
75.	21.58	35.12	5.50	0.20	24.45	352.3	75.	21.58	35.12	24.45	352.3	0.303
99.	21.20	35.18	5.52	0.30	24.60	338.8	100.	21.18	35.18	24.60	338.2	0.390
123.	20.81	35.24	5.51	0.22	24.75	325.2	150.	20.28	35.24	24.89	312.8	0.554
148.	20.32	35.24	5.38	0.24	24.88	313.6	200.	18.70	35.00	25.11	292.8	0.707
172.	19.84	35.19	5.22	0.29	24.97	305.9	250.	14.54	34.40	25.63	243.8	0.842
187.	19.49	35.13	5.22	0.26	25.01	302.0	300.	11.26	34.09	26.04	204.6	0.955
220.	17.10	34.74	5.05	0.57	25.31	274.2	400.	8.16	34.11	26.57	154.5	1.136
245.	15.04	34.46	5.02	0.64	25.57	250.0	500.	6.76	34.20	26.85	128.7	1.279
271.	12.62	34.20	4.92	0.82	25.87	221.0	600.	5.63	34.27	27.04	110.1	1.400
295.	11.47	34.10	5.00	1.02	26.01	207.6	700.	5.07	34.36	27.18	97.6	1.505
394.	8.27	34.10	3.07	2.16	26.55	156.5	800.	4.77	34.44	27.28	89.0	1.599
493.	6.86	34.20	1.29	2.48	26.83	130.3	1000.	4.09	34.49	27.40	78.4	1.769
590.	5.70	34.26	0.83	2.66	27.03	111.6	1200.	3.54	34.53	27.48	70.7	1.920
786.	4.82	34.43	0.84	2.89	27.27	90.0						
982.	4.14	34.49	1.14	2.55	27.39	79.2						
1178.	3.61	34.52	1.27	2.86	27.47	72.2						
1474.	2.97	34.57	1.60	2.73	27.57	62.9						

CROMWELL 6, STATION 35, 23-31N LAT, 147-57W LONG, JULY 28, 1964, 2100 G.C.T.
DRY BULB 24.9 WET BULB 19.4 WIND SPEED 18, DIR. 06 BAR. 21 WEATHER 01 VIS. 7 CLOUD TYPE 8, COVER 1

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.18	35.04	5.19	0.26	23.64	426.4	0.	24.18	35.04	23.64	426.4	0.000
10.Δ	24.21	35.04	5.21	0.19	23.63	427.6	10.	24.21	35.04	23.63	427.6	0.043
30.Δ	24.18	35.04			23.64	427.6	20.	24.27	35.03	23.60	430.4	0.086
50.	23.09	35.20	5.60	0.14	24.08	386.3	30.	24.18	35.04	23.64	427.6	0.129
75.	21.86	35.24	5.50	0.19	24.46	351.0	50.	23.09	35.20	24.08	386.3	0.211
102.	21.13	35.30	5.43	0.48	24.71	328.4	75.	21.86	35.24	24.46	351.0	0.304
125.	20.77	35.28	5.39	0.13	24.79	321.4	100.	21.17	35.30	24.69	329.6	0.390
151.	19.62	35.13	5.35	0.33	24.98	304.0	150.	19.67	35.14	24.97	304.7	0.550
175.	18.46	34.94	5.03	0.23	25.13	290.2	200.	17.31	34.76	25.27	277.0	0.696
190.	17.85	34.84	4.99	0.31	25.21	283.4	250.	14.20	34.37	25.68	239.2	0.827
223.	15.90	34.57	4.87	0.50	25.46	259.8	300.	11.77	34.14	25.99	210.1	0.940
250.	14.20	34.37	4.89	0.72	25.68	239.2	400.	8.47	34.04	26.47	164.1	1.129
275.	12.70	34.22	4.92	0.84	25.87	221.1	500.	6.45	34.06	26.77	135.2	1.280
301.	11.74	34.14	4.86	0.87	25.99	209.7	600.	5.29	34.13	26.97	116.1	1.407
400.	8.47	34.04	3.98	1.72	26.47	164.1	700.	4.68	34.24	27.13	101.3	1.516
501.	6.44	34.06	2.19	1.98	26.78	135.0	800.	4.36	34.36	27.26	89.8	1.613
601.	5.28	34.13	1.17	2.21	26.98	116.0	1000.	3.88	34.48	27.41	77.0	1.782
801.	4.36	34.36	0.73	2.68	27.26	89.7	1200.	3.44	34.52	27.48	70.3	1.931
1001.	3.88	34.48	1.09	2.68	27.41	76.9						
1201.	3.44	34.52	1.28	2.18	27.48	70.3						
1499.	2.79	34.57	1.73	2.42	27.58	60.9						

ΔFROM BT DATA

Table 3.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 6, STATION 36, 25- ON LAT, 148- OW LONG, JULY 29, 1964, 0600 G.C.T.
DRY BULB 23.2 WET BULB 19.5 WIND SPEED 24, DIR. 08 BAR. 21 WEATHER 03 VIS. 7 CLOUD TYPE 8, COVER 8

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.10	35.13	5.20	0.32	23.73	417.6	0.	24.10	35.13	23.73	417.6	0.000
9.Δ	24.13	35.13	5.25	0.20	23.72	418.8	10.	24.13	35.13	23.72	418.9	0.042
30.Δ	24.13	35.13			23.72	419.7	20.	24.14	35.13	23.72	419.5	0.084
50.Δ	24.08	35.13			23.74	419.0	30.	24.13	35.13	23.72	419.7	0.127
76.	21.64	35.25	5.45	0.12	24.53	344.5	50.	24.08	35.13	23.74	419.0	0.211
99.	21.14	35.32	5.52	0.18	24.72	327.2	75.	21.74	35.24	24.50	347.5	0.308
123.	20.75	35.30	5.52	0.62	24.81	319.4	100.	21.13	35.32	24.72	326.8	0.393
149.	19.82	35.16	5.28	0.26	24.95	306.7	150.	19.77	35.15	24.96	306.1	0.552
173.	18.65	34.99	5.18	0.22	25.12	291.1	200.	17.24	34.76	25.30	275.0	0.699
188.	17.88	34.86	5.08	0.56	25.21	282.6	250.	13.98	34.35	25.71	235.8	0.827
221.	16.01	34.60	5.07	0.45	25.46	260.0	300.	11.25	34.12	26.06	202.5	0.938
247.	14.22	34.38	5.11	0.70	25.68	238.8	400.	8.97	34.06	26.41	170.7	1.126
272.	12.36	34.20	4.99	0.91	25.92	216.1	500.	6.80	34.02	26.70	142.8	1.284
298.	11.31	34.12	4.96	1.25	26.05	203.3	600.	5.44	34.09	26.92	121.1	1.418
395.	9.09	34.06	4.73	1.42	26.39	172.2	700.	4.69	34.21	27.10	104.1	1.531
495.	6.89	34.02	2.88	2.09	26.68	144.0	800.	4.30	34.33	27.24	91.3	1.630
593.	5.51	34.08	1.50	2.43	26.91	122.5	1000.	3.87	34.47	27.40	77.9	1.801
790.	4.33	34.32	0.66	2.72	27.23	92.2	1200.	3.41	34.54	27.50	68.6	1.950
987.	3.90	34.46	1.03	2.80	27.39	78.5						
1185.	3.42	34.52	1.35	2.64	27.48	70.0						
1484.	2.80	34.58	1.80	2.61	27.59	60.2						

CROMWELL 6, STATION 37, 26-30N LAT, 147-58W LONG, JULY 29, 1964, 1600 G.C.T.
DRY BULB 22.1 WET BULB 19.8 WIND SPEED 12, DIR. 08 BAR. 13 WEATHER 03 VIS. 7 CLOUD TYPE 6, COVER 5

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	23.22	35.41	5.31	0.08	24.20	372.9	0.	23.22	35.41	24.20	372.8	0.000
10.	23.26	35.41	5.03	0.09	24.19	374.3	10.	23.26	35.41	24.19	374.3	0.038
51.	22.38	35.28	5.42	0.17	24.34	361.2	20.	23.27	35.39	24.17	376.4	0.075
76.	20.30	35.18	5.72	0.32	24.84	314.8	30.	23.13	35.36	24.19	375.0	0.113
100.	19.69	35.16	5.70	0.11	24.98	301.7	50.	22.43	35.28	24.33	362.2	0.188
124.	19.24	35.14	5.63	0.46	25.09	292.9	75.	20.38	35.18	24.82	316.6	0.273
151.	18.92	35.10	5.57	0.98	25.14	288.9	100.	19.69	35.16	24.98	301.7	0.351
174.	18.24	34.96	5.49	0.15	25.20	283.4	150.	18.93	35.10	25.14	289.0	0.500
189.	17.09	34.75	5.42	0.24	25.32	272.3	200.	16.43	34.65	25.40	265.0	0.639
223.	15.24	34.51	5.06	0.51	25.56	249.9	250.	13.78	34.35	25.75	231.9	0.765
248.	13.87	34.36	5.02	0.64	25.74	233.2	300.	11.96	34.22	26.01	208.1	0.876
274.	12.79	34.28	5.03	0.76	25.90	218.5	400.	9.75	34.12	26.32	179.0	1.071
299.	11.99	34.22	5.15	0.88	26.01	208.4	500.	7.33	34.02	26.62	150.3	1.237
397.	9.83	34.12	4.94	1.30	26.31	179.9	600.	5.73	34.07	26.88	126.0	1.377
498.	7.37	34.02	3.41	1.91	26.62	150.9	700.	4.89	34.17	27.05	109.0	1.495
598.	5.75	34.07	1.82	2.29	26.87	126.4	800.	4.45	34.28	27.19	96.5	1.599
796.	4.47	34.28	0.53	2.77	27.19	96.9	1000.	3.89	34.44	27.38	79.8	1.778
995.	3.90	34.44	0.80	3.06	27.37	80.1	1200.	3.43	34.53	27.49	69.3	1.929
1194.	3.48	34.52	1.21	2.80	27.48	70.7						
1453.	2.88	34.58	1.52	2.58	27.58	61.0						

CROMWELL 6, STATION 38, 25- ON LAT, 151- OW LONG, JULY 30, 1964, 0800 G.C.T.
DRY BULB 23.3 WET BULB 20.8 WIND SPEED 17, DIR. 06 BAR. 22 WEATHER 01 VIS. 7 CLOUD TYPE 8, COVER 3

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.49	35.08			23.58	432.3	0.	24.49	35.08	23.58	432.3	0.000
10.	24.49	35.08			23.58	432.7	10.	24.49	35.08	23.58	432.7	0.044
30.Δ	24.20	35.10			23.68	423.8	20.	24.47	35.08	23.58	432.7	0.087
51.	22.14	35.28			24.41	354.7	30.	24.20	35.10	23.68	423.8	0.130
76.	21.21	35.31			24.69	328.9	50.	22.25	35.27	24.37	358.2	0.209
101.	20.46	35.18			24.80	319.8	75.	21.23	35.31	24.69	329.2	0.296
125.	20.24	35.27			24.92	308.5	100.	20.48	35.18	24.79	320.0	0.377
151.	19.60	35.18			25.02	299.9	150.	19.64	35.19	25.02	300.2	0.534
177.	18.23	34.94			25.19	284.7	200.	16.75	34.69	25.36	268.9	0.677
191.	17.43	34.80			25.28	276.6	250.	13.61	34.31	25.75	231.9	0.803
224.	14.93	34.44			25.57	248.5	300.	11.62	34.18	26.04	204.6	0.913
252.	13.52	34.30			25.76	230.7	400.	8.45	34.04	26.47	163.7	1.099
276.	12.27	34.20			25.94	214.5	500.	6.61	34.02	26.72	140.3	1.253
301.	11.60	34.18			26.05	204.2	600.	5.30	34.12	26.96	117.0	1.383
401.	8.42	34.04			26.48	163.4	700.	4.68	34.24	27.13	101.2	1.493
501.	6.60	34.02			26.72	140.1	800.	4.41	34.36	27.26	90.2	1.590
600.	5.30	34.12			26.96	117.0	1000.	3.96	34.49	27.41	77.1	1.759
799.	4.41	34.36			27.26	90.3	1200.	3.48	34.54	27.49	69.6	1.908
1000.	3.96	34.49			27.41	77.1						
1199.	3.48	34.52			27.48	70.8						
1428.	2.93	34.55			27.55	63.6						

ΔFROM BT DATA

Table 3.--Continued

CROMWELL 6, STATION 39, 25- ON LAT, 154- 1W LONG, JULY 31, 1964, 0600 G.C.T.
DRY BULB 24.0 WET BULB 21.0 WIND SPEED 20, DIR. 07 BAR. 20 WEATHER 03 VIS. 6 CLOUD TYPE 8, COVER 6

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.18	34.92	5.16	0.24	23.25	463.8	0.	25.18	34.92	23.25	463.8	0.000
10.	25.20	34.92	5.21		23.24	464.8	10.	25.20	34.92	23.24	464.8	0.047
52.	24.35	35.12	5.37	0.46	23.65	427.5	20.	25.18	34.96	23.28	461.7	0.093
77.	22.60	35.14	5.37	0.15	24.17	378.2	30.	25.05	35.01	23.35	454.9	0.140
102.	21.86	35.23	5.37		24.45	352.8	50.	24.44	35.11	23.61	430.7	0.229
126.	20.94	35.20	5.06	0.18	24.68	331.6	75.	22.74	35.14	24.13	382.1	0.331
152.	19.48	35.03	4.80	0.70	24.94	307.8	100.	21.90	35.22	24.43	354.3	0.424
177.	18.15	34.88	4.68	0.49	25.16	287.2	150.	19.60	35.05	24.92	309.5	0.591
192.	17.34	34.78	4.80	0.60	25.28	276.0	200.	16.96	34.73	25.34	270.9	0.737
227.	15.68	34.58	4.84	0.49	25.52	254.4	250.	14.42	34.44	25.68	238.7	0.866
253.	14.25	34.42	4.84	0.81	25.71	236.7	300.	12.08	34.21	25.98	210.8	0.979
279.	12.97	34.29	4.84	0.89	25.87	221.3	400.	9.26	34.08	26.38	173.6	1.173
303.	11.96	34.20	4.89	0.85	26.00	209.4	500.	7.02	34.01	26.66	146.6	1.335
405.	9.16	34.08	4.44	1.25	26.39	172.1	600.	5.62	34.07	26.89	124.6	1.472
506.	6.91	34.01	3.40		26.67	145.2	700.	4.75	34.18	27.08	106.7	1.589
607.	5.55	34.08	1.61	2.22	26.90	123.2	800.	4.22	34.30	27.23	92.6	1.689
809.	4.19	34.31	0.66	2.92	27.24	91.5	1000.	3.78	34.47	27.41	76.1	1.860
1009.	3.77	34.48	1.16	2.85	27.42	75.7	1200.	3.32	34.53	27.50	68.2	2.006
1211.	3.29	34.53	1.49	3.22	27.50	67.9						
1466.	2.77	34.57	1.75	2.28	27.58	60.5						

CROMWELL 6, STATION 40, 25- ON LAT, 157- 0W LONG, JULY 31, 1964, 2100 G.C.T.
DRY BULB 25.5 WET BULB 22.1 WIND SPEED 14, DIR. 07 BAR. 20 WEATHER 03 VIS. 8 CLOUD TYPE 8, COVER 5

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.79	35.10			23.50	439.5	0.	24.79	35.10	23.50	439.5	0.000
10.	24.72	35.10			23.52	437.9	10.	24.72	35.10	23.52	437.9	0.044
30.Δ	24.60	35.10			23.56	435.2	20.	24.66	35.10	23.54	436.6	0.088
50.	24.46	35.11			23.61	431.3	30.	24.60	35.10	23.56	435.2	0.132
76.	23.06	35.12			24.03	392.3	50.	24.46	35.11	23.61	431.3	0.219
100.	22.19	35.19			24.33	364.4	75.	23.12	35.12	24.01	394.0	0.323
125.	21.10	35.18			24.62	337.2	100.	22.19	35.19	24.33	364.4	0.419
151.	20.45	35.16			24.78	322.8	150.	20.48	35.16	24.78	323.3	0.592
175.	19.25	35.02			24.99	303.6	200.	17.89	34.82	25.18	286.3	0.746
190.	18.47	34.90			25.10	293.8	250.	14.84	34.49	25.63	244.0	0.880
225.	16.37	34.63			25.40	265.9	300.	12.21	34.25	25.98	210.5	0.994
251.	14.78	34.48			25.64	243.2	400.	9.57	34.13	26.36	175.0	1.189
277.	13.51	34.34			25.80	228.2	500.	7.26	34.07	26.67	145.6	1.350
302.	12.10	34.24			26.00	209.0	600.	5.89	34.13	26.90	124.1	1.487
401.	9.56	34.13			26.37	174.8	700.	4.96	34.22	27.08	106.6	1.603
503.	7.20	34.07			26.68	144.8	800.	4.34	34.32	27.23	92.7	1.704
605.	5.84	34.13			26.91	123.2	1000.	3.72	34.45	27.40	77.4	1.876
804.	4.32	34.32			27.23	92.3	1200.	3.35	34.52	27.49	69.3	2.025
1005.	3.71	34.45			27.40	77.2	1500.	2.75	34.56	27.58	61.2	2.223
1205.	3.34	34.52			27.49	69.2						
1507.	2.74	34.56			27.58	61.1						

CROMWELL 6, STATION 41, 23-30N LAT, 157- 1W LONG, AUG. 1, 1964, 0600 G.C.T.
DRY BULB 25.0 WET BULB 21.2 WIND SPEED 18, DIR. 07 BAR. 18 WEATHER 02 VIS. 7 CLOUD TYPE 8, COVER 2

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.62	34.90			23.10	478.1	0.	25.62	34.90	23.10	478.1	0.000
10.Δ	25.63	34.90			23.09	478.8	10.	25.63	34.90	23.09	478.8	0.048
30.Δ	25.60	34.90			23.10	478.8	20.	25.63	34.90	23.09	479.3	0.096
50.	25.38	34.91			23.18	472.4	30.	25.60	34.90	23.10	478.8	0.145
75.	24.43	35.00			23.53	439.4	50.	25.38	34.91	23.18	472.4	0.241
98.	23.44	35.14			23.93	402.2	75.	24.43	35.00	23.53	439.4	0.355
123.	22.63	35.20			24.21	376.5	100.	23.38	35.15	23.96	399.9	0.461
137.	22.02	35.18			24.37	362.0	150.	21.31	35.21	24.59	341.3	0.648
148.	21.48	35.24			24.56	343.7	200.	18.00	34.84	25.17	287.0	0.806
161.	20.34	35.03			24.71	329.7	250.	14.93	34.50	25.62	245.1	0.940
172.	19.76	35.03			24.87	315.4	300.	12.28	34.22	25.94	214.3	1.056
187.	18.85	34.94			25.03	300.0	400.	8.94	34.02	26.38	172.9	1.251
287.	12.84	34.26			25.87	221.2	500.	6.92	34.02	26.68	144.7	1.412
445.	7.97	34.02			26.53	158.8	600.	5.61	34.08	26.90	123.8	1.547
590.	5.71	34.07			26.88	125.8	700.	4.81	34.19	27.08	106.6	1.664
787.	4.40	34.30			27.21	94.5	800.	4.35	34.31	27.23	93.1	1.765
985.	3.86	34.46			27.39	78.0	1000.	3.82	34.47	27.40	77.2	1.937
1182.	3.36	34.51			27.48	70.0	1200.	3.33	34.53	27.50	67.9	2.084
1480.	2.79	34.56			27.57	61.5						

TEMPERATURE ERROR TERM AT 400. METERS IS 0.11

ΔFROM BT DATA

Table 3.--Continued

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
CROMWELL 6, STATION 42, 22- ON LAT, 156-58W LONG, AUG. 1, 1964, 1500 G.C.T. DRY BULB 23.3 WET BULB 21.9 WIND SPEED 20, DIR. 09 BAR. 16 WEATHER 62 VIS. 5 CLOUD TYPE 8, COVER 7												
DEPTH	TEMP.	SAL.	CXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.25	35.10			23.36	452.9	0.	25.25	35.10	23.36	452.9	0.000
10.	25.26	35.10			23.36	453.6	10.	25.26	35.10	23.36	453.6	0.046
30.Δ	25.18	35.10			23.38	452.0	20.	25.24	35.10	23.36	453.5	0.091
50.Δ	24.90	35.11			23.48	444.0	30.	25.18	35.10	23.38	452.0	0.137
75.	23.19	35.17			24.03	392.2	50.	24.90	35.11	23.48	444.0	0.227
100.	21.83	35.16			24.41	356.9	75.	23.19	35.17	24.03	392.2	0.333
124.	20.83	35.13			24.66	333.7	100.	21.83	35.16	24.41	356.9	0.427
148.	19.44	35.00			24.93	308.8	150.	19.37	35.00	24.94	307.4	0.594
172.	18.46	34.92			25.12	291.5	200.	16.29	34.67	25.45	260.5	0.737
186.	17.44	34.79			25.27	277.4	250.	13.78	34.45	25.83	224.5	0.860
221.	14.78*	34.53			25.68	238.7	300.	12.21	34.30	26.03	206.5	0.968
246.	13.85	34.46			25.82	225.4	400.	9.01	34.09	26.42	169.1	1.158
271.	13.39	34.42			25.88	219.8	500.	6.51	34.03	26.74	138.3	1.313
295.	12.40	34.32			26.00	208.6	600.	5.50	34.15	26.97	117.1	1.442
391.	9.29	34.10			26.39	172.4	700.	4.96	34.28	27.14	101.6	1.552
488.	6.70	34.02			26.71	141.3	800.	4.63	34.39	27.26	90.6	1.650
585.	5.60	34.13			26.94	119.8	1000.	3.96	34.48	27.40	77.8	1.820
780.	4.71	34.38			27.24	92.3	1200.	3.41	34.55	27.51	68.0	1.968
974.	4.04	34.47			27.38	79.4						
1166.	3.48	34.54			27.49	69.1						
1448.	2.92	34.58			27.58	61.4						

ΔFROM BT DATA
*INTERPOLATED DATA

MS# 1583

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DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
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